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Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. GEORGE'S HOSPITAL.

TWO CASES OF RETENTION OF URINE.

Under the care of CÆSAR H. HAWKINS, Esq.

CASE I. John L., aged 42, was admitted under Mr. Hawkins's care on May 12th, 1859. It seemed that he was a butler, and used to be very intemperate, but had not been able to indulge during the last year, on account of poverty. He suffered first from stricture nine or ten years ago—the result, as he supposed, of gonorrhœa. He then was treated successfully, and has ever since been able to pass No. 4 catheter without difficulty. At 6 A.M. on May 7th, he found himself unable to pass water, and went to his medical attendant, who, however, could not pass the instrument. A little urine, however, came away after the attempt. No urine passed on the 8th. On the 9th, he again applied for relief. An instrument was again tried, but it could not be got into the bladder; and then a diaphoretic draught was given, after which the urine passed *guttatim*, and continued to do so till the morning before admission, since which none had passed. His medical attendant then again tried to pass the catheter; and, failing in this, ordered some leeches to the perinæum. He was admitted at midnight, on May 12th. It was then thought best not to try to pass any instrument; but he had a hot bath, and two successive doses of forty drops of laudanum. After the second dose of laudanum, he went to sleep; and when next seen, at 10 A.M., the stricture had given way, and the urine had been effused into the cellular tissue of the perinæum, scrotum, and penis, which were very hard, red, and distended. The bladder was distended to above the umbilicus, and was very hard and tender to the touch. The pulse was small, 108; the tongue brown and quite dry. He was still partially narcotised, and the pupils were contracted. Attempts were made, both by the house-surgeon and by Mr. Prescott Hewett, who saw the case in Mr. Hawkins's absence, to pass the catheter. This was impossible, however; and the urethra was found much lacerated somewhere about the end of the spongy portion. It now appeared that the only prospect of saving his life was establishing an opening into the bladder; and, with this view, Mr. Hewett proceeded to operate. A staff was passed down to the seat of stricture; but, as this went into the false passage, it served no purpose in the operation, and was disregarded. Having cut deeply into the middle line of the perinæum, in front of the prostate, Mr. Hewett succeeded in opening the urethra behind the stricture; the cavity, lined by mucous membrane which was formed in that situation, being easily recognised. The forefinger was now pushed along into the bladder, and served as a guide for a gum catheter, which was thus passed from the perinæum into the bladder. The urine came away in large quantities, very alkaline and offensive. Free incisions were then made into the sloughing cellular tissue. He was then put to bed, and attempts were made to keep up his strength by a very large supply of stimulants and such diet as he could take; but he fell into a semi-insensible condition, with hiccough; and sank gradually, dying in the evening of May 18th.

On *post mortem* examination, the kidneys were found healthy, except that there were a few spots of ecchymosis here and there in their tissue. The ureters were not dilated. The bladder was a good deal thickened and fasciculated, and the mucous membrane was ulcerated in patches. The urethra was healthy down to within an inch from the lower end of the spongy portion. From this point to the bladder it was extremely dilated and sloughy, forming a large cavity with ragged walls, leading into the bladder. The incision in the perinæum led into this cavity, just in front of the prostate. There was no obstacle, in the dead subject, to the passage of an instrument into the bladder, as the tissue which had formed the stricture was quite destroyed by the sloughing. The other organs presented nothing remarkable.

REMARKS. The treatment of impermeable stricture—*i. e.*, of stricture which has become, by spasm or otherwise, impassable to instruments—is, it must be confessed, one of the most difficult problems in surgery. Our own experience inclines us to agree with the opinion which is supported by the great authority of Mr. Cock of Guy's Hospital, that the best way is to operate early by the rectum in most cases. Without pronouncing an opinion upon treatment which we had not an opportunity of seeing, it would be impossible to say whether such an operation would have saved the life of the patient; but his case, at any rate, resembles, in many respects, those which are adapted for this treatment, and in which it succeeds best. The patient had no visceral disease; his stricture had been passable till within a short time before the occurrence of the fatal retention; and yet, from some cause, whether that the patient had himself made a false passage in attempting to pass the catheter, as was his custom, or that some change in the composition of the urine had set up invincible spasm, it was clear that an instrument could not be passed *per urethram*. In this position of things, one of three courses was indicated; viz., either to trust to the operation of warm baths and opium, or to puncture the bladder from the perinæum or rectum. The first plan is certainly one which rarely fails to relieve the retention; yet it may do so (and, in fact, did fail later on in this very case; for, though the patient was fully narcotised after his admission into the Hospital, his retention was not relieved); and, when it succeeds, it is sometimes only after protracted suffering and a continuous exhibition of opium not devoid of danger. On the other hand, the puncture from the perinæum is a difficult operation, and a severe one; while that from the rectum is momentary and safe. The former would, it is true, be preferred in a case where the stricture was really and permanently impermeable; inasmuch as then a staff could at the same time be forced through the stricture into the perinæal wound in the urethra, and a radical cure attempted; but, in the present case, the short time during which it had been found impossible to pass the instrument showed that the stricture was obstructed only by spasm; and that, when the irritation of the urine had been withdrawn from it for a few days, there would be every prospect of passing a catheter. The case was much changed, however, when Mr. Hewett saw it. Then, as extravasation had taken place, incisions in the perinæum were indispensable; and then the operation from the perinæum was clearly indicated, to prevent, if possible, further extravasation and sloughing. The operation of cutting into the bladder without a staff is one always of considerable difficulty, yet which may be confidently undertaken by a surgeon practically acquainted with the anatomy of the parts, and which a good anatomist can demonstrate with certainty on the dead body. The great obstacle to it in the living subject is the sloughing and extravasation which has always occurred in the patients in whom it is required. Still, by accurately remembering the relations of the urethra and prostate to the pubic arch, by cutting strictly in the middle line when deep in the perinæum, and by avoiding making too free incisions at a great depth, we believe that the bladder may always be reached without wounding any important parts.

The other case, which occurred in the same Hospital, at about the same time, is peculiar, from the seat of the stricture, and from the difficulties found in discovering the orifice of the urethra, as well as in passing an instrument along it. In this case, also, there is good reason for supposing that a puncture from the rectum before extravasation came on might have saved the patient's life; but, unfortunately, he had neglected

his case, or rather, treated himself by medical means only; he having been an assistant to a medical man, and thus having acquired an unfortunate idea that he was competent to manage his own ailments. When he was admitted, the mischief had progressed to such an extent, and the condition of the urethra was such a complication of recent and old mischief, that little hope could be entertained of successful treatment.

Case II. T. B., aged 39, was admitted under Mr. Hawkins's care on May 18th. He had had a stricture for about six years near the orifice, the result of an attack of syphilis, in which much of the glans penis had sloughed away, and a new orifice had been formed on its lower aspect. He had never been under treatment for stricture, except once, when a No. 4 silver catheter had been passed into the bladder six times. Four years ago he was at this hospital for retention of urine, when he was relieved after the use of the hot bath, but did not remain in the house. Latterly he had been subject to retention, for a few hours, occasionally; but he had neglected it. On the morning before admission, retention came on, and had persisted up to that time. Just previous to his coming here, he found the penis and scrotum becoming red and enlarged. On admission it was seen that the cellular tissue of the whole penis and scrotum was much infiltrated, and the redness was beginning to show itself it the groins and lower part of the abdomen. There was no pain or hardness in the perinæum, and he gave a distinct history of the effusion having commenced in the penis. The prepuce was so swollen that it was impossible to find the orifice of the urethra, until it had been slit up; and even then it was very difficult to get any instrument into the urethra. At length a small silver catheter was passed. The stricture near the orifice did not offer much obstacle; but one was met with lower down, in front of which a false passage seemed to exist, as the catheter went in for some distance without arriving at the bladder. Free incisions were made into all the spots where extravasation existed, and he was ordered to have hot baths to faintness, and large doses of laudanum. After baths in the morning and evening he passed water in drops, but no substantial relief was afforded, although the laudanum was pushed almost to narcotism.

Next day, the gangrene of the scrotum continuing to spread, and the patient's condition becoming constantly worse, a long incision was made in the median line of the scrotum, along its whole length, and carried down into the urethra. No catheter was put in, but the urine came away from this incision; not much passed, however, and he still suffered from strangury and pain in passing water. The gangrene continued to extend till it implicated the whole of the scrotum and skin of the penis; and he sank gradually, retaining his senses till the morning of the 23rd, when he became quite comatose, and died in the evening.

On *post mortem* examination no visceral disease of any importance was discovered. The kidneys were healthy, but somewhat congested; the ureters not distended. The whole of the scrotum and penis was one mass of slough, and the urethra terminated anteriorly in a large, sloughing cavity, opening freely into the prepuce. The whole urethra, down to within three inches of the bladder, was much dilated, ragged, and sloughy. About five inches from the glans penis, a stricture existed, in front of which was a false passage leading, for about two inches, into the cellular tissue of the penis. The bladder was much distended with foul urine, its walls thickened and fasciculated, and its mucous membrane ulcerated in spots, and in some parts of a perfectly black colour from congestion.

University College Hospital. At a meeting at the hospital on Wednesday week, Mr. Thomas Field Gibson announced that his relative, Mr. George Filliter, of Trigonhill, Wareham, Dorset, had sent him £1,000 as a donation for the hospital, and had expressed a wish that the amount should be invested, and the income applied in some manner to connect with the hospital the name of his son, Dr. William Filliter, lately deceased at an early age. Dr. Filliter was formerly a distinguished student of the faculty of medicine, and had received his preliminary education in the Junior School and Faculty of Arts of the College. At the same meeting, the committee, having resolved on a former occasion not to have recourse this year to a public dinner, determined to set on foot a more private appeal for aid towards the year's expenses. Subscriptions towards that object of £200 from Mr. J. R. Jaffray and Mr. A. W. Jaffray, father and son, contributors of several like gifts on former occasions, and one of £25 from Mrs. Flanagan (an addition to several former similar gifts for investment), were ordered to be inserted in the list of donations.

Original Communications.

FIVE CASES OF OVARIOTOMY—THREE SUCCESSFUL; WITH PRACTICAL REMARKS.

By I. Baker Brown, Esq., F.R.C.S., Surgeon to the London Home for Surgical Diseases of Women.

[*Read before the Harveian Society of London.*]

[*Concluded from page 424.*]

Case IV. *Ovarian Dropsy, Multilocular; Extirpation; Death,* Madame D., aged 35, was admitted into The London Home. on February 19th, 1859. Dr. Grasemann, of Great Russell Street, at whose recommendation she applied to me, has kindly furnished the following history:—

"Madame D. had typhus fever about a year before her marriage, which took place fourteen years since. She has had four children; the last in 1853. During her last pregnancy, she suffered from prolapse of the womb; and after her confinement, was ill for long time with pain in the lower part of her abdomen. About four years ago, a tumour was diagnosed in the hypogastric region by M. Nélaton, of Paris, who is said to have mentioned the right side as its seat. Blisters were applied, and medicines given; and it is said to have disappeared under this treatment. Two years ago she came to England, and did not perceive any enlargement at that time. After six months, the abdomen began to enlarge again, and was again reduced by treatment. In another six months the enlargement began again, and she went over to Brussels, and was under the care of M. Raspail for four months, and afterwards under Messrs. Jolly and Charron. In August 1858, she was tapped for the first time (on this occasion, Mr. Jolly is said to have pronounced her liver to be diseased). The paracentesis was repeated in six weeks; and again on November 4th, December 10th, 1858, and January 18th, 1859. Menstruation was regular up to the last."

I saw her in the early part of February; and from the history of the case and a careful examination, I had no difficulty in pronouncing it to be multilocular ovarian tumour; and further, it was certainly a case in which no resource was left except extirpation. I stated very fully the great dangers of the operation; and, after consideration, she elected to undergo it. I ordered her a tonic, as her general health was a good deal reduced. When admitted into The Home, she was very rapidly filling again; and from the great sense of fluctuation, I had no doubt there was a good deal of peritoneal fluid in addition to the ovarian.

After due preparation by warm baths and gentle aperients and tonics, I proceeded to operate, on February 24th, at 2 P.M., assisted by my colleagues Messrs. Nunn and Philip Harper, as well as by the several visiting surgeons. Mr. Edwards administered chloroform. I made an incision about seven inches long between the umbilicus and pubes, and carefully cut down to the peritoneum, which I then punctured, and let out forty-five pints of fluid. The ovarian cyst now appeared: I then passed my hand around it, and found that there were only a few adhesions, but that these were very strong and thick—one especially, which passed up to the edge of the liver. I now punctured the cyst, and let out several pints of thick fluid. It was then easily drawn out of the abdomen. I tore through the smaller adhesions; but the one which passed to the liver and one of the others were so thick, and contained such large vessels, that I passed a twine ligature round them before dividing, and allowed them to return into the abdomen. The pedicle was then drawn out; and, Mr. Philip Harper's clamp being put on, it was fixed in an instant, without the possibility of slipping. I then sponged out the fluid which remained in the abdomen, and closed the opening with iron wire sutures, the pedicle being retained at the lower end of the incision. Wet lint and strips of plaister were put on, a broad flannel bandage was passed around the abdomen, and the patient was replaced in her bed.

3.30 P.M. The pulse was 100. Two grains of opium were given. Wine and ice were ordered.

10 P.M. The pulse was 120. She had a little sickness. One grain of opium was given.

February 26th. She slept a little in the night. She had a little brandy once. Sickness was troublesome.

3.30 P.M. Pulse 110. The tongue was slightly coated, but

moist. The skin was moist. She looked unfavourably, and had much sickness. She was ordered to take two grains and a half of calomel, and five grains of Dover's powder every four hours. Egg and brandy, beef-tea, and wine, were given.

February 27th, 3 A.M. She appeared rapidly sinking, and was pulseless. Vomiting was incessant. Brandy and beef-tea enemata were given, and opium suppositories were applied.

8 A.M. She had somewhat rallied. There was no pain, but a good deal of swelling of the abdomen. Egg and brandy were ordered to be given, as much as possible.

9 P.M. She was very low. There was no pain.

February 28th. She was lower; pulse 130. She was ordered to have ten minims of tincture of sesquichloride of iron every four hours, and in the evening three grains of quinine.

March 1st. She slept a little during the night, but slightly wandered, and was restless. She was very sick; the vomited matter was nearly pure bile. In the latter part of the day, she became very restless, and almost maniacal at night. Dr. Hall Davies saw her, and advised half a drachm of tincture of henbane and a drachm at midnight.

She gradually sank; and died at 4.45 A.M. on March 2nd, six days after operation.

POST MORTEM EXAMINATION twelve hours after death. Pretty firm adhesions of the wound had taken place. The peritoneum was much inflamed; a good deal of lymph had been effused, and glued the intestines together. The ligatures which had been returned into the cavity were surrounded by solid effusion. The liver was very pale, and so soft in texture as to break down on the slightest pressure. The kidneys were enlarged, and congested. The heart and lungs were healthy. The uterus was very large and congested. Menstruation was taking place. The vessels in the pedicle were perfectly obliterated by the clamp, and an injection of water could not be forced through them.

REMARKS. It is evident that this case was a most unfavourable one for operation; still there was nothing else left to be done; and, in my opinion, the cause of death was the diseased liver: and without any operation she would have probably died after an ordinary tapping.

CASE V. *Ovarian Dropsy in both Ovaries: Multilocular: Extirpation: Cure.* I was called to Mrs. W., aged 45, mother of two children, by Mr. Philips, of Pentonville Road, who gave me the following history:—

"About five years ago, Mrs. W. got into ill health; she had a large annular induration over the ala nasi, of a deep brown colour, looking like the beginning of some form of lupus. After some gentle medicine and the occasional application of tincture of iodine, the patch disappeared; but before it had entirely gone a deep seated glandular swelling began to rise from the chest, behind the left clavicle. This swelling increased slowly upwards, and produced some dyspnœa by pressure upon the bronchus, It was osteo-sarcomatous in feel, triangular in shape, with its base in the chest, and apparently firmly attached to the adjacent structures. It disappeared rapidly after two or three weeks attention to the general health, and the frequent application of iodine. Soon after its disappearance, she became constantly sick and a good deal emaciated, and complained of excessive pain and pressure in the rectum on going to stool. On examining the rectum, the end of the finger just reached a hard nodulated substance, which seemed to be pressed backwards from the upper part of the vagina. The vaginal passage, however, was found to be perfectly free; but at its upper and posterior part, behind the uterus, the same hard nodulated mass could be distinctly felt, and it was exceedingly tender to the touch, both here and in the rectum. A variety of remedies were tried for the purpose of relieving the distressing sickness. The liver seemed to be most inactive; and the greatest amount of relief was, I think, obtained from the measures applied directly to the functions of this organ. After a short interval, I was again summoned to her, and found her much improved in general health, but the abdomen so swollen, as to press on the diaphragm and impede respiration. It was, I believe, thought that pregnancy had taken place; but the abdomen fluctuated distinctly and the catamenia were regular. I had no difficulty in arriving at a different conclusion. The fluid was evidently encysted, as the patient could lie down quite flat without any increase of dyspnœa. About four years ago I first tapped her, and withdrew a full house-pail full of straw-coloured fluid, loaded with albumen; apparently nothing but serum. After an interval of fourteen weeks, during which she greatly improved in health, I repeated the operation; and about the same quantity and quality of fluid came away. At intervals of three or four months she was tapped until about a year ago, since which not more than seven or eight weeks have elapsed between the operations. The character of the fluid changed into a brown coffee colour at the third or fourth operation, then again became pale; and the last seven or eight times has been pale and straw-coloured, as at first, and quite sticky with albumen. She has recovered quickly after each tapping, being generally out in a week or ten days each time. Latterly, since the abdomen has become more rapidly distended, there have been marked emaciation and loss of power; and she feels that she cannot go on much longer without some more permanent form of relief. The urine has never been albuminous; but has varied in quantity according to the state of distension of the abdomen."

I saw her on February 19th, 1859, and found the countenance pale and unhealthy, but cheerful and hopeful, and the abdomen rapidly refilling. From the above very succinct history, by Mr. Philips, and her present state, I had no difficulty in arriving at the conclusion that she was suffering from multilocular ovarian dropsy, and that no resource was left except extirpation. This proposition met with the hearty concurrence of the patient, who had already made up her mind to any operation, however full of danger, which might be proposed. I ordered gentle aperients and ten grains of citrate of quinine and iron three times a day, and a warm bath at night.

February 25th, 2 P.M. I proceeded to operate, assisted by Messrs. Nunn and Philip Harper; Messrs. Philips, Ramsbottom, Worthington, and others, being present. Mr. Edwards administered chloroform. I made an incision, about six inches in length, between the umbilicus and pubes, and carefully divided the structures down to the peritoneum, which was then opened and several pints of fluid were let out. A substance closely resembling a large cauliflower then presented itself, which further examination showed to be a growth attached to a large mass of cells of the right ovary. There were only a few moderate adhesions, which I tore through, and pulled the mass out through the wound. The pedicle was short; the clamp of a pair of calipers was passed around and tightly closed, and the mass of cyst was cut off. This being done, another tumour of the size of a child's head was visible in the left side of the abdomen. I found it to be a mass of cyst attached to the left ovary. One unexpected difficulty now presented itself. On endeavouring to pass my hand round the mass, to withdraw it, I found it so firmly adherent that I could not move it. Careful examination showed that this did not arise from ordinary adhesions; but it appeared as though the mass were entirely surrounded by a layer of pelvic fascia. With a good deal of trouble, I managed to insinuate my hand between the cyst-wall and thus succeeded in enucleating the mass, repeatedly upturning cysts, each containing fluid of different colours and density. In three places the union was so complete and intimate that I was obliged to use the écraseur to divide portions of the adhesions. I was thus enabled to withdraw the mass; and, having no second clamp, I passed a strong whipcord ligature around the pedicle, and bringing it close to the clamp already fastened on the right pedicle, I tied it to one of its blades. I now carefully sponged all the fluid out of the abdomen, and finding no hæmorrhage, I proceeded to close the wound with iron wire sutures, at intervals of half an inch, and retained the clamp, with both pedicles, at the lower extremity of the incision. Wet lint, with broad strips of adhesive plaster, were put on the incision; a broad flannel bandage was passed around the abdomen, and the patient was put into bed.

From this time she steadily progressed. The clamp was removed on the seventh day, and each day, one or more sutures. On the eleventh day the bowels were relieved by enemata, and on the fourteenth day she was removed to the sofa, and is now (March 16th) gradually gaining strength; the whole line of incision is healed, except at the point where the pedicles came out. She eats, drinks, and sleeps well; and her bowels act easily of their own accord.

REMARKS. This is the first case I have met with where both ovaries were so diseased as to require extirpation; and when the patient's bad general health is considered, with the length of the disease, the character of the cysts, the double extirpation, extensive adhesions, etc., I think we may fairly say that this case is unique in ovariotomy. It will be seen that the écraseur was used to separate the adhesion. I believe it was the best mode of effecting the object. I need not say that no other mode of treatment was open to us. The repeated tappings only relieved temporarily, and death was hastening on very rapidly.

I shall not attempt to draw any comparisons with this and other great operations. We have no proper data to go upon at

present; but taking these five cases, we see three lives saved that would otherwise have been lost. The results of all the operations performed during the past fifteen months in London, shew rather more than one out of two successful; and I have no doubt that when the diagnosis of this disease is more perfect; when the operation is performed earlier; when all the steps of the operation are carefully done; when health is improved by diet and medicine before operation; and when the after treatment is thoroughly understood—then, and not till then, must we expect to be able to lay down any table of comparison. Let us, however, be encouraged by the experience of herniotomy, lithotomy, and lithotrity, and the more recent amputations of the thigh; and, observing how improved treatment has told upon their statistics, let us confidently anticipate that surgery will yet triumph in ovariotomy, and thus benefit humanity.

17, Connaught Square, Hyde Park, May 1859.

REMARKS ON DR. INMAN'S PAPER "ON THE INFLUENCE OE VITALITY UPON SECRETION".

By JOHN KENT SPENDER, Esq., Surgeon to the Eastern Dispensary, Bath.

I HAVE read with considerable interest Dr. Inman's paper in the JOURNAL of April 30th, "On the Influence of Vitality upon Secretion". His observations embody much that has probably occurred to the thoughtful physiologist, though perhaps never before put into so intelligible and practical a form. But the question is at once suggested: Is not Dr. Inman confounding two essentially different processes—*active* and *passive* secretion? *Active* secretion is a sign and product of life, and is coincident with the activity of all the other organic processes. *Passive* secretion is almost entirely a physical act, and is independent of nerve-power: nay, it even goes on better when nerve-power is diminished or suspended. It scarcely deserves the name of a vital function at all; but I apprehend that it pretty accurately defines that phenomenon of which Dr. Inman has given so many appropriate illustrations.

In true secretion, we have three elements to bear in mind—the blood from which the secretion originally comes; the blood-vessel through which the secretion transudes; and the gland-structure which is the anatomical instrument for separating and eliminating it. Now, the most ultimate gland-structure always possesses the several constituents of mucous membrane; namely, areolar tissue, basement-membrane, and epithelial cells; and the special characters of the different secretions are usually said to depend upon the elective faculty with which these epithelial cells are endowed.

Active secretion being an index of present life and force, the epithelial cells are busy in the work; but the term passive secretion literally expresses the fact that the aqueous portion of the blood, and very little else, simply filters through the blood-vessels and gland-walls; and that vital agency has very little to do with it. For example, increased cutaneous perspiration is of two kinds—active, when it accompanies bodily exercise; passive, when it is the effect of exhausting diseases, and the prelude of death itself. In the former case, it is the symbol of augmented function; in the latter, it is merely that the diminished tone of the capillary walls allows the water of the blood to permeate them. Paralysis of the vasi-motor nerves, or any particular dyscrasia, produces the same result. I lately attended a case which illustrates this point. A child of seven years old had threatening mesenteric disease: her skin was cold and dry by day, and covered with profuse passive sweat at night. By alterative and tonic medicines, and a regulated diet, a constitutional improvement quickly ensued, and the passive sweat was stopped; and, in the course of a few weeks, the skin was constantly moistened with the warm dew of active perspiration.

A so-called diuretic drug may appear to exercise a marked effect in increasing the amount of urine; and, if the organic and inorganic principles of this secretion are increased in proportion to the aqueous constituent, it is a true instance of accelerated functional activity. But, in hysterical and nervous persons, who pass a large quantity of nearly colourless urine at a time, the haste with which the water filters through the Malpighian tufts leaves scarcely any time for it to be impregnated with the contents of the epithelial cells that line the uriniferous tubes, and which are the agents for imparting to the urine its special characters. The act is less a vital than a physical one, and cannot with precision be termed a secretory process at all.

Pathology supplies us with numerous facts illustrative of the same distinction. The primary stages of bronchorrhœa, gonorrhœa, and diarrhœa, have particular features in common; and the exudative products of these forms of local inflammation have analogous appearances and qualities; but, if these inflammations become chronic in duration or asthenic in degree, the hyperæmia in which they severally originated is unnaturally prolonged, and this local blood-stasis causes a corresponding change in the nature of the exudations.

It is an old doctrine, that secretion is only a form of molecular nutrition; the tissue nourished being the epithelial cells, and the nutriment supplied to them that which is ultimately destined to be the secretion itself. This being granted, we have a right to assume that the influence of innervation is as much required for the formation and growth of gland-cells as for the ultimate elements of every other animal tissue. Consequently, when nerve-force is lessened, gland-cells cannot form and grow so rapidly, and the secretional product must be diminished in an equal ratio. Hence, whenever we have an apparently augmented secretion as the accompaniment or result of weakened power, we ought to regard it, not as an exaltation of a physiological act, but rather as a retrogression into the domain of purely physical processes.

ON UNUNITED FRACTURE.

By W. J. MOORE, Esq., H.M. Indian Medical Service, Bombay Establishment; formerly Senior Resident Surgeon at the Queen's Hospital, Birmingham.

UNLESS there be some constitutional cause, either already persistent, or the result of circumstances, as locality, situation, diet, etc., immediately after the accident, it will seldom happen that Nature's reparative process is insufficient to consolidate a fractured limb, treated with ordinary care both by attendant and patient. When such non-consolidation does happen, it must always be regarded as a grave and serious occurrence, and the more so the nearer the trunk it may be situated. Thus, both as regards the inconvenience to the patient, and the difficulty and dangers attending attempts at cure or relief, the bones of the forearm or leg will give more anxiety to the surgeon than those of the foot or hand; and, again, in their turn, the tibia, ulna, and radius, are less a cause for uneasiness than when the femur or humerus is the bone affected. This remark is not only true regarding operative attempts at cure, but applies with double force to those unfortunate cases where the state of the limb requires amputation as a *dernier ressort*.

The bones in which false joints most frequently occur are, according to the statistics collected by Mr. Norris, those of the thigh and arm (*American Journal of the Medical Sciences*, vol. xxix, 1842); but my own experience would lead me to infer that the occurrence took place at least as frequently in the bones of the forearm as in those of any other part of the frame. South (*Chelius*, p. 888) states that unnatural joints are most frequent in the upper arm; next, the femur would appear to be the one generally affected; and the tibia seems least liable to such result. This is, indeed, what one would, *à priori*, suppose to be the case, as it is evident that a broken leg can be kept in perfect apposition with greater ease and security than a broken thigh; and thus one source of unnatural joint does not act with the same frequency on the former part.

The causes of non-union of broken bones, and of unnatural and false joints, are numerous; but foremost may be mentioned a debilitated or cachectic condition of system. Sir Astley Cooper, in his work *On Fractures and Dislocations*, p. 568, observes: "In numerous instances, the failure of union may be traced to a defective state of the constitutional powers." This debility may arise from divers causes, such as bad food; habitual loss of blood, as from hæmorrhoids; residence in the impure localities or underground tenements of crowded cities. Malarious atmosphere will also produce a condition in which union is with difficulty obtained. This was exemplified in the case of a sailor under my care, when in medical charge of the naval station of Bassadore,* in the Persian Gulf, where the disposition to non-union was happily combated by a lengthened course of quinine and wine.

* For an account of Bassadore, see a paper by the author "On the Climate of the Persian Gulf", *Association Medical Journal*, November 1856.

The cachectic condition constituting scurvy, and the *allied* disease called beri-beri, has a manifest and powerful effect in retarding the consolidation of fracture. It may even cause absorption of a callus several months or years after its formation. This is mentioned by Erichsen (*Science and Art of Surgery*, p. 568), Dr. Guy (Hooper's *Practice of Physic*, p. 277), S. Cooper (*Surgical Dictionary*, p. 943), and other authors; while Armstrong, in his lately published work on *Naval Hygiene*, speaks of old wounds opening in such conditions. In Lord Anson's voyage round the world, when scurvy raged to such an extent that in one ship alone (the *Centurion*), in the latitude of the island of Juan Fernandez, forty-three men died during one month, and double that number during the next, it is stated that loosening of old fractured bones occurred in many instances (*Narrative of Lord Anson's Voyage Round the World*, pp. 33-142). One of these cases was that of a sailor, whose leg had been broken fifty years before, at the battle of the Boyne. An instance of the kind was witnessed on board the *Dreadnought*. The patient, while in China, broke one of his ribs, which united in the usual time. In the voyage home, he became scorbutic; the rib which had been broken became disunited; but, on the man's recovery from scurvy, it speedily united again (*Library of Medicine*, vol. v, p. 84).

In an American ship, to whose captain I paid a professional visit when on the Gulf station, in 1855, most of the crew were more or less affected with scurvy. Among them were two cases of non-union of fractured forearm, one of three months, the other of longer persistence. I was assured by one of the mates, who professed to be doctor also, that these fractures had been only placed in splints; that, in the one case, the arm grew firm; but, on the man becoming affected with scurvy, it ultimately became as I found it.

These debilitating causes may come into operation during the progress of cure, and will produce their result in the injured part; and, according to the anæmic state established, either a false joint properly so called, or a fibrous tissue possessing a low degree of vitality, will take the place of a healthy deposition of osseous material. It seems probable that, in very debilitated individuals, more or less of this fibrous tissue would always be the deposit; organisation not proceeding to the more complex condition of simulated synovial membrane, cartilage, and capsule. The simple condition of the bones being united by fibrous tissue also appears more susceptible of cure than when a false joint has been formed. This may easily be imagined, when it is considered that, in the one case, absorption to a considerable extent must occur; while, in the other, deposition is more required.

Undue movement during the stage of consolidation is supposed to be a frequent cause of non-union. Unless, however, there be a very considerable amount of interference with the quietude of the part, it seems improbable that this result would occur very frequently in a perfectly healthy constitution. The fractured clavicle, which can seldom be kept entirely motionless, unites; ossific deposit sometimes restores the broken acromion; and the rib, which is unavoidably in constant motion, unites, as Paget (*Surgical Pathology*, vol. i, p. 248) has shown, by the ensheathing or provisional callus—a mode of repair now known not to be so frequent in the bones of man as was formerly supposed. We may, therefore, conclude that, in the majority of instances (unless the limb has been moved about much more than is generally the case, at least in civil practice), non-union depends on some constitutional defect.

Pregnancy has been said to be a cause. I think, however, when non-union happens during this condition, it will be due to some of the causes inducing debility, or otherwise may be traced to want of care on the part of the patient or attendants. This was the opinion of Amesbury (*Practical Remarks on the Nature of Fracture*) and of S. Cooper (*Surgical Dictionary*, p. 943); but cases have been recorded of the occurrence. For instance, Alanson (*Med. Obser. and Inquiries*, vol. iv, No. 37) reports a case in which union was delayed during pregnancy, and took place after delivery; and Wardrop (*Med.-Chir. Trans.*, vol. v, p. 359) records another. Boyer (*Traité des Malad. Chirur.*, p. 32) and Malgaigne (*Treatise on Fractures*, p. 95) doubt if pregnancy be unfavourable to union. On the whole, the weight of evidence is against pregnancy being a cause *per se*; and the same may be said of suckling.

Advanced age does not appear to favour disunion, although it certainly is a cause of slow consolidation in occasional instances; but that it proves sufficient of itself to cause non-deposit of ossific matter, may well be doubted. Should, however, aged persons be placed in the same position, with regard to external circumstances, as the young and robust frequently are, it appears not unreasonable to suppose that we should have a larger amount of ununited fractures occurring in elderly persons than is at present the case; for to the feebleness of old age would more readily be added the debility consequent on vitiated and tainted atmospheres. On this head, South observes: "In almost every ununited or imperfectly united fracture I have seen, the patient has scarcely, if at all, exceeded middle age."

Muscular action is given by systematic writers as a cause of non-union: as, for instance, in fractured femur, when the psoas and iliacus muscle acts upon the upper fragment; or, according to Mr. Butcher (*Dublin Quarterly Journal of Medical Science*, Feb. 1853), the lower fragment is drawn upwards and outwards; or when the muscles of the leg separate the fractured ends of the tibia widely apart; or, as Mr. Crompton (*Medical Gazette*, Nov. 15th, 1850) observes, in any case where the seat of fracture is near the insertion of a powerful muscle. This, however, can rarely be allowed to become a cause of non-union in the hands of an educated surgeon, although some degree of deformity, in spite of the best endeavours, particularly in the femur, will sometimes result; but I can easily imagine the graver accident of false joint occurring from the treatment of bone-setters and other pretenders, who flourish on their misdeeds and the credulity of the public.

In intracapsular fracture of the neck of the femur, the globular head, being detached from its vascular supply, may necrose. Therefore, want of supply of arterial blood may undoubtedly be a cause of want of union. If one fragment is so situated that a sufficient supply of blood is not afforded to it, not only will it refuse to throw out bony granulations, but it may likewise necrose. Erichsen (*Science and Art of Surgery*, p. 194) mentions, out of thirteen cases of ununited fracture of the humerus, nine were found to be situated above the canal in which the nutritious artery is lodged; the course of the vessel being from above downwards.

Diseases affecting the system, as gout, syphilis, and cancer, may have an influence in retarding union; but perhaps, except in their extreme stages, cannot be looked upon as definite causes, otherwise than as producing cachectic conditions. Every surgeon must have seen persons affected with secondary syphilis get well from fractured limbs; and a fracture I once saw, in a confirmed cancerous subject, consolidated in little more than the usual time.

Acute diseases, as fever and erysipelas, will delay consolidation; and perhaps, from the frequent movement which such cases are of necessity subjected to from delirium, restlessness, etc., false joints may result.

Loss of nervous influence may be a cause of non-union. Thus, a case occurred of injury of the back, palsy of the lower extremities, and fracture of the leg and arm. The latter united, but the former did not.

Malgaigne mentions disease of the bone near the seat of fracture as an occasional cause. Another class of cases in which non-union occurs are those where a portion of the bone becomes detached, dies, and remains as a foreign body between the ends of the fracture. In compound fracture, this is not an uncommon occurrence; and, of course, union will not take place until the removal of the dead bone has been effected.

Muscle may also get between the ends of the bones; but this would most likely be thinned and removed by absorption, unless sufficiently injured and detached to lose its vitality.

Bullets, pieces of cloth, and other extraneous matter, sometimes effect a lodgment. These latter, however, would generally be detected at the time of injury, and, if possible, removed.

Sir A. Cooper believed that non-union might sometimes result from the too long application of cold, in the shape of lotions or otherwise. He thought that the inflammatory action necessary for the reparative process might be thus checked. Malgaigne, amongst what he calls "local causes", also mentions moist applications, togther with too early, too tight, too long bandaging, and premature use of the limb. Practically, however, under the judicious treatment employed by surgeons of the present day, these will seldom become causes: for instance, no person would think it necessary to continue the application of cold after the subsidence of pain and heat.

There is yet another peculiar state of system, which, although rarely occurring, will, I believe, in some instances, prevent true union taking place. I allude to mollities ossium, or malacosteon—a state which has been well described by Mr. Stanley as "an affection accompanied with softness of the bones and thinning of their walls, and with the accumulation

of adipose matter in their tubes and cells, with a preternatural excretion of phosphate of lime with the urine." (*Diseases of the Bones*, p. 237.)

A woman was under my care in 1851 for fracture of the tibia and fibula. The parts would not unite with any degree of firmness, and she afterwards became the subject of distorted pelvis and mollities ossium. Cases of this kind may be found in the *Institutes of Surgery* (vol. i, p. 370), and in Mr. Stanley's work on the bones.

It should, however, not be lost sight of, that the reverse has been known to occur. Mr. Toynbee, in *St. Thomas's Hospital Reports*, No. 1, states that, notwithstanding the unsoundness of the bones in this disease, union sometimes takes place not only at, but within, the customary period; and he gives the case of a man who had twenty-two fractures of long bones, all uniting without difficulty. Arnott (*Medical Gazette*, June 1833) and Bell (*Diseases of the Bones*, p. 71) also mention cases where union occurred in less than the usual time.

There are some localities in which fractured bones do not so readily unite; and, in illustration, may be mentioned the Persian Gulf, particularly the station of Bassadore, on the northern extremity of the poetically famed island of Kishna; some cantonments in northern India; and, as I have been informed, places on the African coast, and the southern States of America; the reason being probably the miasmatous state of the atmosphere.

Lastly, there are certain cases where non-union occurs, and for which we cannot assign any cause. The patient appears in good general health, neither affected with gout, scurvy, syphilis, or cancer; has not been exposed to malarious influences, or in any manner become debilitated, either previously to the accident or subsequently to that event. The fracture has been treated *secundum artem;* and yet a long period will pass before consolidation occurs, or the case will end in non-ossific union. Here we are obliged, as Fergusson justly observes, to refer it to "the usual resource of ignorance—a peculiarity of constitution". (*Practical Surgery*, Part i, p. 19.) Happily, such cases are small in number; but the amount occurring from several of the causes named is considerably larger, averaging, as I have reason to believe, one in about every three hundred and fifty fractures.

Although not of practical importance, still, as a matter of curiosity, it is worth noticing that by far the greater number of false joints occur in the male sex. Thus, out of one hundred and forty-seven cases mentioned by Mr. Norris, there were but four women; and the whole of the instances referred to by Malgaigne were men.

[*To be continued.*]

CASE OF EXTENSIVE MALIGNANT DISEASE OF THE ABDOMINAL VISCERA: OBSCURITY OF SYMPTOMS.

By William Davies, Esq., York Town, Bagshot.

Mr. J. R., hotel-keeper, aged 55, of fair sandy complexion, and somewhat inclined to corpulency, had always enjoyed pretty good health till the last year or two, with the exception of having now and then attacks of gout in the foot and biliary derangement, but for which affections he seldom put himself under medical treatment. He sent for me on the 27th of September last, in consequence of his having been suffering from pain in the lower and fore part and sides of the abdomen, recurring at indefinite intervals. He stated that he had not been well for some time; that he often felt sick and weary, nervous, and indifferent as to going about his business. His appetite was various and capricious. After eating, he felt distended, with occasional pains in the region of the stomach, flatulency, and heartburn; his bowels had not acted kindly, sometimes being constipated, at others relaxed. He complained a good deal in passing urine, which was usually loaded with an acid furfuraceous sediment. He was prescribed antacids and alteratives, which relieved him.

He shortly afterwards left home for a change, and I did not see him again till the beginning of December. At this time, he had evidently lost flesh, and his countenance was dull and sallow-looking, yet placid; but it gradually assumed that pinched and anxious expression, and that peculiar yellow hue, which are so characteristic of organic visceral disease. He now wasted fast. His chief complaint was of pain in the abdomen, below the navel, on each side, always present, but augmented in frequency to an extreme degree of severity. At length the epigastrium became tender, as well as painful, with a burning sensation in the stomach extending upwards towards the throat, followed by nausea and heartburn. These symptoms slowly increased and advanced, till everything taken into the stomach was rejected some little time afterwards. Vomiting took place at intervals (particularly in the evening), of matters having different appearances: sometimes a green watery fluid and mucus; at others, that peculiar acid brown fluid like coffee-grounds, often mixed with undigested food; and, two or three weeks before his death, almost entirely fæculent. He had frequent attacks of hiccough, which annoyed him considerably towards the last. The skin was sometimes hot, and usually dry, and imparted a roughish sensation to the touch; the tongue was always dry and clammy, and had a reddish fur in the centre; the bowels (as they almost always had been all along) were obstinately costive, and, towards the close of the disease, nothing could be elicited by evacuation or other means. The pulse varied from 70 to 100; it was small, thready, and feeble.

On April 16th, his memory began to fail; his reasoning powers sank rapidly; and, in the evening of Sunday, the 17th, he expired.

Many remedies were tried, which I do not particularise, as none of them gave him any sensible or continued relief.

Post Mortem Examination. The whole body was emaciated and attenuated to the utmost degree. The abdominal parietes being reflected, a considerable quantity of a thick glairy fluid escaped from the cavity. Scarcely any omentum was observed on the bowels; the convolutions of the bowels presented a dark gangrenous appearance, and were agglutinated together by firm adhesive peritoneal inflammation. The liver was pale, atrophied, and of a friable granular texture; its peritoneal surface was almost universally adherent to the surrounding viscera; and a small granular tumour was found on the external surface of the large lobe. The gall-bladder was small and empty. The stomach was somewhat oblique in position, and unusually small, capable of holding only about a pint or so of fluid. On laying it open, about half or three-quarters of a pint of a thin yellow feculent fluid escaped. The cardiac end presented a normal appearance; the mucous membrane was soft and vascular, more especially towards its pyloric end, where the organ was increased in thickness, and the mucous membrane corrugated, and of a darkish hue. On cutting open the pylorus, a roughish grating feeling was communicated to the scalpel. The peritoneal coat around it was entire, but involved in the general thickening. A section of the pylorus, contracted in size, exhibited the characters of true scirrhus, which encircled it, and extended somewhat down the duodenum, which was congested and dark coloured. The pancreas and mesentery were much increased in size; they were very hard, and had lobulated masses of a carcinomatous growth, and were inseparably united to the surrounding viscera. On tracing the intestines, much difficulty was experienced by their softened condition and the firm adhesions between their convolutions and the mesentery. Several strictures, of various size and extent, were found in the course of the small intestines, which were much distended above and below, and contained dry hardened masses of fæculent matter. The cæcum was smaller in calibre than usual. The caput coli was very considerably enlarged. Three strictures were observed; one in the ascending, and two in the descending portions of the colon. A stricture was also found, of a scirrhous character, encircling the rectum, about six inches from the anus. The spleen was healthy; as was also the right kidney. The left kidney was enlarged and soft, exhibiting fatty degeneration. The bladder was healthy, and contained about a pint of urine.

Remarks. This case is a very interesting one, from the general abdominal viscera being involved in disease, while the premonitory symptoms were extremely obscure, appearing at first to be simply those of ordinary dyspepsia, no attention having been paid to them by the patient, who, although impaired in health and strength, was able to get out and about tolerably well. When the symptoms became aggravated, he was anxious for further advice, and took the opinion of other medical men, two of whom are of some eminence in the profession, but each gave a different diagnosis. However, as the disease advanced and emaciation increased, accompanied by that peculiar sallow hue of complexion, a general restlessness, and anxious expression, with sickness recurring some time after taking food, as well as the nature of the egesta, no doubt could remain as to the existence of extensive malignant organic disease in the stomach and intestines. Very little could be done in a case of the kind, beyond administering palliatives and sedatives.

Gulstonian Lectures
ON
FEVER AND INFLAMMATION.

DELIVERED BEFORE THE
ROYAL COLLEGE OF PHYSICIANS, LONDON,
1859.

By WILLIAM ADDISON, M.D., F.R.S., Fellow of the College.

LECTURE III.

XIV.—CONTINUED FEVER.

IN the sixth volume of the *Transactions of the Medical and Physical Society of Calcutta*, there is a paper by Mr. Leslie, On the Diseases of Gowhattee, the capital of Lower Assam.

"The poorer inhabitants of the town," says Mr. Leslie, "are badly lodged, clothed, and fed. They sleep on a thin mat, spread upon the ground; their food is chiefly rice, and fever is often introduced by an intractable form of bowel complaint. The disease consists in inflammation and ulceration of the large intestines; and so insidious is it that in many cases emaciation has advanced to a great degree, and ulceration of the colic mucous membrane has taken place, before the patient applies for assistance. In such circumstances, he has no pain, or prominent or urgent complaint to make; scarcely allows he is ill, or has loose stools; he merely feels weak and wastes slowly. But, when fever comes on, the patient wastes rapidly, with thirst, loss of appetite, smooth red tongue, hot skin and frequent pulse. Œdema of the extremities appears, and the disease generally proceeds to a fatal termination amidst the most extreme degree of debility."

Mr. Leslie gives a tabular view of forty-seven fatal cases of the disease, with the appearances on dissection, from which it results that every variety of lesion of the mucous membrane of the colon was observed; from inflammation and purulent secretion, lining the membrane, to abrasion and ulceration, various in extent and depth, or even to mortification.

We contrast this form of fever observed by Mr. Leslie, with fever reported on by Dr. Craigie, which appeared in Edinburgh, in 1834 and 1835. One hundred and seventy-four cases were treated; and of these, in one hundred and twenty-six, or seventy-three per cent., the head was the principal part affected. Of twenty-four examinations, after death, brain affections were found in twenty-two. Speaking of these results, Dr. Craigie says, emphatically:—

"We have had several examples of fatal fever, with lesions of the mucous membrane of the stomach, and sometimes enlargement of the intestinal follicles; but we have almost none of *dothinenteritis*, which have been so commonly observed elsewhere. In the whole of the cases treated by myself, there was only one in which the follicles were so much diseased as to justify particular importance being attached to it, and in this case the ulcerations observed must have existed prior to the fever."

Dr. Robert Perry, from the year 1831 to 1835, made careful observations in upwards of four thousand cases of fever, in Glasgow. Three hundred necroscopic examinations were made; and he dwells particularly on the necessity of distinguishing true typhus from *dothinenteritis*, or typhoid fever.

"Contagious typhus," he says, "is an exanthematous fever, solely produced by the introduction into the system of a specific poison, generated in the human body. It runs a certain course, which may be modified, but cannot be stopped. It is most contagious when the patient is convalescent, the poison being spread abroad by the desquamation of the cuticle. *Dothinenteritis*, or enlargement of the mucous follicles of the smaller intestine, and enlargement and ulceration of the aggregated glands of the lower third of the ileum, is a disease *per se*; and, though it occurs in combination with contagious typhus, it is a different disease, of different origin. It begins with bowel complaint—sometimes so slight at first as scarcely to attract the patient's attention. Afterwards, fever arises. This disease," Dr. Perry goes on to say, "may exist in every degree of mildness or severity; it has no regular period of termination. The fever may run on for two, three, or four weeks, and terminate in gradual restoration to health without any sensible crisis; or the patient may sink under it from exhaustion, or by hæmorrhage from the bowels; or it may end by some of the ulcers of the aggregated glands of the lower third of the ileum penetrating the coats of the intestine."

It is well known, from various afflicting causes—unwholesomeness and insufficiency of food, cold, wet, fatigue, and exposure—that the British and French armies on the heights before Sebastopol suffered an extraordinary amount of sickness: the British army chiefly in the winter of 1854 and 1855; the French army principally in the winter of 1855 and 1856. The former, numbering twenty-three thousand soldiers on its muster roll, had upwards of twelve thousand at one time in hospital; the latter, in January, 1856, had thirteen thousand; in February, twenty-one thousand; and in March, eighteen thousand sick and wounded men, distributed in various hospitals, and in other places that could be hastily obtained for their accommodation and treatment. The chief diseases from which these men suffered were, frost-bites, scurvy, chronic dysentery, diarrhœa, and fevers.

"Contagious typhus, scurvy, dysentery, frost-bites, and hospital gangrene," says Dr. Bryce, speaking of the French hospitals on the Bosphorus, in the winter of 1855 and 1856, "abound; but the first-mentioned disease, by its virulence, extent, and type, is more deadly than all the others taken together." The very large development of scurvy, and the outbreak of contagious typhus, exhausted the sanitary means of the French at Constantinople; and Dr. Bryce noted with astonishment the crowding and filthiness of the patients, the foulness of the bed and body clothes, the unwholesome and ill-ventilated state of the wards, and the stenches arising from various sources. The picture drawn by this gentleman, from personal observation whilst rendering his valuable services to the sick, is one of the most painful and heartrending to be found in the medical records of camps and hospitals.

"I could have no difficulty," says the Doctor, "in pointing out the fallacy of confounding, under one denomination, *two fevers* essentially distinct in respect of symptoms, course, morbid lesions, and etiology.... In the contagious typhus, studied in the French hospitals, as elsewhere, there are present the characteristic maculæ and petechiæ, very distinguishable from the rose-coloured papulæ of typhoid fever. In the former there are absent the abdominal symptoms so prominent and almost pathognomonic of the latter. Equally absent are the anatomic lesions, which constitute the morbid state of typhoid fever, namely, morbid state of the intestinal follicles, mesenteric ganglions, and spleen.... The number of surgeons who have fallen as sacrifices to their duty is almost without parallel. Forty-six died from typhus alone; scarcely one escaped an attack. There was fear lest the sick should be left utterly without skilled help. Sisters of charity, clergymen, orderlies, and all whose duties compel them to pass several hours daily in the service of the wards, have been, with few exceptions, attacked. But worse even than this is the deplorable fact that patients, labouring under scurvy and bowel diseases, when their progress to recovery is established, are seized with contagious typhus.

The vast proportion of the patients, the soldiery, showed, by their attenuated limbs and sunken countenance, a by-gone period of privation of proper nutriment; and the resemblance, in external aspect, of these patients to those suffering from fever during the famine years in Ireland, was very striking. On the other hand, "I have seen," says Dr. Bryce, "in the orderlies, and in others attending upon the sick in previous good health, the sudden invasion of typhus, marked by rigors, intense heat, headache, and delirium; and oftentimes the termination was as rapid and unexpected as the onset. These circumstances are very different from the slowness and incertitude of the same nominal state in typhoid fever."

If we note the series or order of events as related by these several observers, it is, in Mr. Leslie's report, poor diet, hardships, bowel complaint, dysentery, emaciation, and lastly, fever. In Dr. Craigie's cases, it was first fever, headache, and then cerebral and pulmonary affection.

Dr. Perry expressly says that he had to treat two fevers; one beginning with bowel complaint, sometimes so slight at first as scarcely to attract the patient's attention; the other was the contagious typhus. In the hospitals at Constantinople, we have the testimony of Dr. Bryce to the same effect. He had no difficulty in pointing out the fallacy of treating, under one denomination, two fevers, distinct in their etiology; the one supervening on previous forms of ill health, on bygone periods of hardship and suffering; the other attacking the orderlies and attendants on the sick—persons in good health and comfortable circumstances until prostrated by fever. The facts place before us two fevers, the one, contagious typhus, striking

down the healthy; the other, typhoid fever; and the question, as regards the latter form of fever, is: Whether or not anatomical lesions, from which morbid matter may be absorbed into the blood, exist before the fever, as they do in hectic fever?

Now in the case of the sailors we have before mentioned, the men transacted the duties of the ship with ulcers on their legs. In many other instances, persons walk about with extensive ulcerations on the legs and elsewhere. Persons in consumption pursue their daily avocations with suppuration and ulceration in the lungs. In the cases of fever observed by Mr. Leslie, emaciation was apparent, and ulceration of the colic mucous membrane had taken place before the patient applied for assistance—before symptoms of fever appeared. The history of perforating ulcers of the stomach proves that, in many cases, persons do not complain of illness with ulceration of the mucous membrane of that organ. The anatomical lesion is not known to exist, little or no complaint being made until perforation of the coats of the stomach has occurred. In the case of fever, expressly noted by Dr. Craigie as associated with disease of the mucous membrane of the bowel, he says that the local disease existed before the fever.

In the armies before Sebastopol, thousands of men with scurvy, diarrhœa, and dysentery, faced and did their duty. In the overcrowded and poorest parts of cities and towns, where hardships must be endured, sickness abounds: scrofula, scurvy, diarrhœa, dysentery, typhoid fever, and typhus. Under such circumstances, numerous poor persons certainly continue their avocations, with bowel-complaint, diarrhœa, and chronic dysentery. The person may have no pain, or prominent, or urgent complaint to make, may scarcely allow that he is ill, or has loose stools; he merely feels weak and wastes slowly. Chronic ulcerations are preliminary conditions of hectic fever.

The inference is, that the anatomical lesions of diarrhœa and dysentery exist before; but are sometimes latent, until symptoms of fever appear. The fact cannot be demonstrated, neither can it be denied; and, in the absence of direct proof to the contrary, collateral circumstances are in favour of the inference. Could it be demonstrated, hectic and typhoid would be essentially the same kind of fever; both occasioned by debasement of the plasma, from absorption of morbid matter through places of chronic ulceration or anatomical lesion. The differences between them would arise from differences in the situation of the anatomical lesions, and from difference in the qualities of the matter absorbed.

If it should be inquired why ulceration of the mucous membrane of the bowel (the ileum, or colon)—anatomical lesions of diarrhœa and dysentery—occasion typhoid, when chronic ulcerations elsewhere in the body occasion hectic fever, we should reply: Because the special function of the part affected gives spectalty to the fever. The mucous membrane of the bowel is eminently an absorbing surface. Myriads of groups of cellular bodies naturally exist here, the contents of which are all normally tending inwards, towards the fluid of the blood, which is, indeed, their destination. And Peyer's patches in the small intestine are especially rich in absorbent vessels. Therefore morbid elements, from ulceration of these parts, are the more readily indraughted into the blood. Moreover, excretions of the alimentary canal are naturally offensive; these must mingle with the matter of the ulcerations; and, on that account, spoiled and offensive material, abnormally ebbing back into the circulation from places of ulceration or disease in the mucous membrane of the bowel, will more speedily and thoroughly debase the plasma than from ulcerations elsewhere in the body.

"Typhus fever," says Dr. William Fergusson, "may be called the endemic of the British Isles, and of the same parallels of latitude on the continent of Europe. But, besides the endemic, or aërial, origin of this fever, there appears to be another source of the typhoid poison; I mean that which arises in crowded hospitals, prisons, barracks, and other habitations. I acknowledge it to be unphilosophical and incongruous to imagine that two fevers, springing out of sources so distinct, should yet so entirely resemble each other that they have been treated, classed, and acknowledged for the same; nor can I afford any satisfactory explanation of this phenomenon. But the fact is certain that they do so arise; for in the contagious ulcer, or hospital gangrene, we possess a demonstrable, tangible, and visible proof of its existence. This ulcer is a local form—a visible personification, if I may use the term—of the typhoid poison. It never occurs but under the most distressful crowding of the sick and wounded, and it is then so highly contagious that all other ulcers, or even abrasions of the skin, are speedily involved in its destructive course. The contagion is capable of inducing typhous fever upon the sound, healthy, inmates; but in the wounded, where the poison finds a *nidus* and a vent, instead of affecting the constitution generally, it commits its ravages upon the wounded limb. So strong is the predisposition to that form of pyrexia, called typhoid, that it is prone to become an aggravation and superaddition to other forms of fever. All the remittent types and degrees, as well as the catarrhal and peripneumonic fevers are apt, when long continued or improperly treated, to glide into it."

Now not only is the typhoid pyrexia thus apt to become, as Dr. Fergusson says, an aggravation to other forms of fever; but also it is apt to appear in cases of large, surgical wounds, in other wounds, and in puerperal women, where there is lesion of the mucous membrane of the womb, and an offensive discharge. And, generally, of anatomical lesions with offensive discharges, the typhoid pyrexia is apt to become an aggravation.

From all the foregoing considerations, we set down the anatomical and casual distinctions between typhoid fever and typhus, as follows:—

TYPHOID FEVER.	TYPHUS.
Previous, and perhaps present, hardships and privations.	No previous hardships.
Chronic lesions of the mucous membrane of the bowel:	No chronic lesion of the mucous membrane of the bowel, or elsewhere.
Absorption of morbid matter from the anatomical lesions; and lastly—	No absorption of morbid matter to change the qualities of the fluid of the blood; but, first—
Fever, or disorder of the corpuscles of the blood, from debasement of the fluid in which they swim.	Fever, or disorder of the blood-corpuscles from an aërial poison introduced through the lungs; the corpuscles of the blood being the first elements of the body disordered.

The points of distinction, as they relate to our argument, being that:—In typhoid fever the blood-corpuscles are disordered in consequence of previous debasement of the fluid in which they swim;—whereas in typhus they are disordered by a poison acting directly on them in their passage through the lungs.

From the contrast above shewn, it is evident that the condition of the patient is more complicated in typhoid fever than in typhus; for in a given case of each fever, the consequences of the fever may be the same, or equal; but the previous anatomical lesions, which occasion typhoid fever, introduce a most material element as respects the history, treatment, and termination of that form of continued fever.

But it has been concluded that disease of the blood-corpuscles may generate a contagious virus. In the inoculated small-pox, in the case of the physician before related, and in other contagious fevers, the quantity of morbid matter introduced into the blood is exceedingly small; but the magnitude of the effect is very great. The reason we have assigned is because the morbid matter disorders by contagion, or by a contact-action, the whole of the corpuscles of the blood. There are no reasons for excluding, in any arbitrary manner, a similar contact-action amongst the blood-corpuscles from morbid matter introduced into the blood through anatomical lesions in the bowel; especially in cases where the matter absorbed may happen to be particularly offensive; therefore, a severe form of typhoid fever may introduce the virus or poison of typhus.

We say it may do so; because, although the history of hectic fever shows that it is not every form of reactionary fever that gives origin to a contagious virus, still, inasmuch as the generation of a contagious virus in the blood and symptoms of fever go together, so, on the other hand, we apprehend we are justified in saying that the graver forms of typhoid fever do, or may, issue in the production of a contagious matter; thereby, persons in health—attendants on the sick—are struck down with fever; a fever, be it observed—in the persons who may have been attacked by fever in this way—of very different beginnings from the fever of the person communicating it; occasioned, not through debasement of the fluid of the blood from preexisting anatomical lesions, but through a virus generated in the blood of the first patient, and attacking the second and healthy person through the lungs.

The history or seqnence of the sickness which abounds in times of hardship or famine, substantiates the argument; for the order usually is:—first, forms of inflammation without

fever, ulcerations, boils, and eruptions; then follow bowel-complaints, chronic dysentery, and diarrhœa; and, lastly, fevers—the typhoid and typhus. This sequence obtains, because hardships in diet disorder the bowels; and this disorder is comprised in the terms diarrhœa and dysentery. The anatomical lesions of chronic diarrhœa and dysentery occasion typhoid fever; and typhoid fever may beget the poison of typhus. Our own experience accords with the conclusion that the typhoid poison will sometimes beget fever in the healthy attendants on the sick.

Let us examine how far the facts observed in puerperal fever bear out the validity of our argument in this respect.

XV.—PUERPERAL FEVER.

GESTATION and parturition are physiological acts; but the condition of the puerperal woman, immediately after her delivery, is one of a *quasi* pathological character in the following respects:—

The blood abounds in plasma elements, and forms, on withdrawal by venesection, a buffed coat. The uterus, just relieved of its contents, may be likened to an injured organ proceeding to recovery. The condition of its blood-vessels is one favourable to the ebbing back of morbid matter into the circulation, and there are offensive discharges from the uterus. Cruveilhier has seized this analogy in its minutest details. Dr. Ferguson too, dwells upon it. "The puerperal woman," he says, "is in a condition analogous to that of a person who has undergone a serious surgical operation. All the uterine vessels from which the placenta has been detached, form part of a large wound, and are bathed in the secretions which take place while this wound is healing." Such being the conditions of the puerperal woman, her medical treatment has become a matter of routine for the first three days, lest a chill, an emotion, or an error in diet, should change reparative reactions into forms of inflammation. And the words of Mr. Hunter, which we quoted in our first lecture, are applicable here. "Granulations may all at once fade away and lose their life; and pus of a very different quality is discharged when granulations are fading away," than when a sore is granulating freely."

The analogy, or rather perfect similarity, between the condition of the womb in the puerperal woman, when, from a chill, an emotion, an error in diet, or any other accident, granulations have all at once lost their life, and the condition of the mucous membrane of the bowel in cases of chronic dysentery, as respects their both being sources of specially offensive matter, can scarcely be denied; and if it be not denied, then the same course of reasoning which has been employed in tracing the relation between ulceration of the mucous membrane of the bowel and typhoid fever, and between typhoid fever and typhus, is equally available in explanation of the relation of inflammation of the womb in the puerperal woman, to two forms of puerperal fever. That is to say:—In the puerperal woman the conditions upon which inflammation of the womb supervenes are favourable to a debasement of the plasma, because there are anatomical lesions, and because, from the state of the uterine vessels, morbid matter is specially liable to ebb back into the circulation; and should this absorption take place to a degree sufficient to disorder the corpuscles of the blood, symptoms of fever, from deuteropathy of the plasma, would arise; that is, fever, from the same kind of antecedents as hectic and typhoid fever. But it has been concluded that disorder of the blood-corpuscles may issue in the generation of a contagious poison; consequently, in a lying-in hospital, a puerperal woman, in an adjoining bed, or in an adjacent ward, may become affected with fever from the illness of the first patient;—a fever, be it observed, in this second case, of very different beginnings from the first; occasioned, not through anatomical lesions and debasement of the plasma; but by a poison generated in the body of the first patient; affecting the second woman from the air and through the lungs.

On referring to the literature of puerperal fever, it is seen that physicians have been divided in their views concerning the pathology of that disease; some holding the opinion that puerperal fever is an idiopathic fever; others regarding it as a local inflammation, taking the form of peritonitis, metritis, or uterine phlebitis. These two views, there seems to us no necessity for placing in antagonism. In all cases of puerperal fever there are forms of inflammation and fever; but, if there be truth in our doctrine of fever, it is of the utmost importance in any given case of puerperal fever, to determine whether inflammation has, or has not, preceded, and been a cause of fever. If it has, the fever is a reactionary, or plasma fever, *i.e.*, fever from debasement of the plasma, and anatomical lesions precede the fever; if it has not, the fever is a primary or aërial fever, and independent of any inflammation or anatomical lesion, except what may follow from it.

Upon the subject discussed in this section, it has been suggested that we have offered no proof of the existence of *granulations* in the interior of the puerperal womb. But, as we have said in the first lecture, granulations are simple cellular growths; their shape and colour are not essential to their definition; and certainly "the large wound from which the placenta has been detached" can heal only through the intervention of new cellular growths, which may, from unsuitable conditions, "all at once lose their life and fade away;" and should they do so, then reparative reactions are changed to forms of inflammation—a granulating wound is "all at once" changed into an ulcerative one.

[*To be continued.*]

Transactions of Branches.

BATH AND BRISTOL BRANCH.

NYCTALOPIA.

By AUGUSTIN PRICHARD, Esq., Surgeon, Bristol.

[*Read April 21st*, 1859.]

THERE are two sets of symptoms, representing two very different conditions of the powers of vision, which are expressed in English by the terms *night-blindness* and *day-blindness;* and two technical words derived from the Greek, viz., nyctalopia and hemeralopia, have been used to designate them.

There is the very great advantage in the use of Latin and Greek technical words, that they are the same in all languages, and, whether we refer to a French or German, or any other work, we find them there; but, in this particular instance, and in the use of these two, great confusion has occurred.

It is, of course, important that all such doubt should be removed; and it is inconvenient not to know the meaning assigned by the author you are reading to the particular word he uses; and I bring the subject before the Society more with the hope that, by a definite and reasonable expression of opinion, something may be done towards setting this question at rest, than with any expectation of saying much that is new on the subject of the diseases themselves; neither do I claim originality in what I have to say respecting the derivation of the words; but it is probable that they have been used hitherto thus promiscuously, and, as I think, incorrectly, because many writers have not considered it necessary to enter into the subject of the origin of terms.

By almost all ophthalmic writers, *night-blindness* has been called *hemeralopia*. Mr. Mackenzie and one or two others have renognised the difficulty, and the former avoids it by using only the English words; and Dr. Little calls night blindness nyctalopia. With these few exceptions, also, day-blindness is called by most writers nyctalopia; and the terms thus used are supposed to be derived in the following way; viz., *hemeralopia*, from ἡμέρα, *a day*, and ἀψ, *an eye*, or a sight by day; and *nyctalopia*, from νὺξ, *night*, and ἀψ, or a sight by night. But this explanation is anything but satisfactory, even without considering the syllable *al*, which occurs in both words, and which, by this method of interpretation, is unaccounted for; for we can hardly imagine diseases of the eye named from such symptoms as that the patient could see by daylight, or that he could see by night; for these are no causes of complaint: it is rather that the patient is blind by day, or blind by night; and the real derivation bears out this statement.

There is a Greek word, ἀλάομαι, *I wander or grope about;* and another derived from it, and compounded with ἀψ, namely, ἀλάωψ, or ἀλαῶπις, which means *blind*. Nyctalopia is, therefore, night-blindness, derived from νὺξ and ἀλαῶπις, being the disease in which patients can see by day, but are blind by night; and hemeralopia is day-blindness, from ἡμέρα and ἀλαῶπις, being the disease in which patients can see by night, but are blind by day.

Of these two diseases, nyctalopia, or night-blindness, is most marked in its symptoms; and, although better known in brighter climates than our own, we not unfrequently meet with cases of it, occurring here and there, without any connexion with one another.

Nyctalopia does not mean that the patient is absolutely blind at night, but that, although he sees as well as usual by day, and there is no peculiarity in the appearance of the eyes, he cannot see to find his way about at night, and artificial light is of little or no aid to him.

That the disease is not one of the rare cases of periodic amaurosis, is proved by the fact that, whenever the patient is taken into a dark room or corner, he cannot see: in other words, to enable him to see correctly, he requires the objects to be illuminated by a large amount of daylight.

The pathology of the disorder is very obscure. I have had three cases lately under treatment, and have two or three every year; but I have not yet examined them with the ophthalmoscope, nor have I been able to make any satisfactory experiments. Two were children, who, besides the regular symptoms of the disease, were presbyopic for a time, requiring in the day, for reading, a lens like that worn by old people; and, as far as the sight alone is concerned, to require more light upon an object is nearly as much a sign of increasing years as to require artificial aid in adjusting the focus of the eye.

Again, in the disease called "asthenopia", or "weak sight" (where patients see to read well for a minute or two, but the sight becomes *presently* confused), young persons are frequently presbyopic, and require glasses for perfect sight; but their eyes are only temporarily old, and, by suitable treatment, they are made young again; that is, they regain the power of keeping the eyes adjusted to objects at different distances.

The day before yesterday, I saw a strumous boy, who was brought to me on account of defective sight; and it proved to be asthenopia, of a fortnight's standing, with no apparent cause besides weakness of his general health. He could see well with a thirty-six-inch convex pair of spectacles; but he could not see to make out letters or marks in a darkened room, when I could read them readily.

In two of the cases which I have lately seen, the symptoms followed sore-throat; one being a case of diphtheritis, and another ordinary tonsillitis; and I think that many of these cases, and indeed other general diseases, have lately been followed by unusually obstinate debility.

The most interesting accounts of nyctalopia have been given by surgeons who have had opportunities of noticing it in hot climates. In the West Indies, it has been known to attack simultaneously nearly half a ship's crew, so that, after dusk, they had to be led about. In Strasburg, there was an outbreak of it a year or two ago among the soldiers; and, in these instances, it was traced to prolonged exposure of the eyes to too bright a light. The retina being thus rendered for a time less sensitive, the patients are nyctalopic. An attempt has been made to connect the condition with the colour of the eyes, or the amount of pigment in them; but this has not been successful.

The physician who reports the case of the Strasburg soldiers, says that, by sending the patients into a dark room for two or three hours in the middle of the day, and making them try to see in the dark, they can readily be cured. The cases reported from the West Indies also got well after two or three months.

I have prescribed the dark room on one or two occasions, but have not had any report as to its efficacy, or otherwise. Counterirritants, tonics, and stimulants, appear to me to be the best plan of treatment; and it is an encouragement to know that the cases generally do well.

I feel that I ought to apologise to the meeting for bringing forward so imperfect a paper about a disease upon whose puzzling nature I can throw so little light. Its name has been doubtful, and its nature doubtful. Fortunately for our patients, its diagnosis is easy, and its treatment satisfactory; and I do not despair at all of our finding out its pathological history. It does not appear likely that the ophthalmoscope will lend us much aid; but so many wonderful facts connected with light and optics have lately been found out, among others, by that very numerous body, the photographers—as, for example, the power of isolating the chemical and luminous rays of light, and of shutting up the former ray for months in a dark chamber, and employing its photographic powers afterwards, and the course of rays through lenses of various simple and complex structures—that we shall most likely find an explanation of these three curious abnormal conditions, which arise so often from the same causes, and occur so frequently together, that they are undoubtedly connected with one another, and which, when they exist separately, affect respectively the optical, the mechanical, and the sensitive parts of the eye; I mean presbyopia, asthenopia, and nyctalopia.

Discussion. Mr. Stockwell gave the history of a case of asthenopia arising from extensive eczematous eruption of the head and neck. The child could read for one or two minutes, and would then say that she could see nothing. This loss of vision continued for a time, and then it was slowly regained. By treatment adapted to the constitutional state of the patient, the eruption was cured, and the eyesight quite restored.

Mr. Norman had for years known an individual who had habitually very large pupils, so that the whole eye seemed occupied by it. The pupil, however, contracted by light. At night, or towards the dark, this lady could not see at all, but was obliged to be led about. The explanation probably was, that the pupil, being ordinarily dilated to a great exent, when the light decreased the pupil could not enlarge; and therefore, from some peculiar state of the retina, sufficient impression was not made on it.

Mr. George had a patient, one of whose pupils was enormously dilated, the other natural. In the dilated eye, the sight was weak; in the other, it was perfect.

Mr. Boult remarked that, in hot countries, the opinion was very common that night-blindness arose from sleeping in the moonlight. Though the explanation might be difficult, there could be no doubt that sleeping, in hot climates, in the open moonlight, was decidedly injurious; as well as exposure to the direct rays of the sun.

Dr. Tunstall gave the particulars of a gentleman who, having had an attack of apoplexy, continued to suffer from double vision, though there was no visible difference in the axis of the eyes, and the vision of each eye was perfect. The patient, in every other respect, is quite well.

Mr. Bartrum narrated a case where the eye had been protruded, and the most marked squinting caused, by effusion of blood among the muscles of the eyeball, inducing double vision. As the blood was absorbed, the squinting disappeared, and double images were no longer formed.

Dr. Davey illustrated this abnormal vision, dependent on some irregular muscular action, by pressure on the eyeball.

Mr. Prichard remarked, that the axis of vision in both eyes was, or ought to be, quite alike. If either diverged from this, it is strabismus, which might arise from deficient muscular action or pressure on the nerves either in the brain or at the exit of the nerves from the orbit. By careful observation, one might trace almost certainly which muscle is the one affected. By fixing the head, and causing the patient to look at an object, it would be noticed that, in one direction, the two images converged; on the other side, they diverged. At the present day, we were daily acquiring fresh information upon subjects of this kind, and the stereoscopic images, and the new discoveries of photography, enable us to test the patients amount of binocular vision as well as the degree of sight possessed by each eye.

ON THE TREATMENT OF STRICTURE OF THE URETHRA.

By George Norman, Esq., F.R.C.S., Consulting Surgeon to the Bath United Hospital.

[*Read April 21st*, 1859.]

The frequency and the importance, in surgical practice, of the diseases of the male urethra and bladder induce me to believe that a few observations on long continued and severe stricture of the urethra may not be unacceptable to the Association, or unprofitable in the discussion.

The perinæal section, as it has been of late called, and not unfrequently employed for the relief of the worst forms of stricture, gives rise to the consideration what are the circumstances under which it should be resorted to.

Mr. Syme, the present most prominent advocate of the measure, has laid down a rule, that the section of the perinæum should not be made unless an instrument having a groove in its convex surface can be introduced into the bladder, which, no doubt, greatly facilitates the operation, by having the groove to cut into. With deference to the great abilities and the position of Mr. Syme, my own experience would bring me to the conclusion that, when an instrument, be it ever so small, can be passed into the bladder, it is perfectly possible to cure very severe stricture by careful perseverance in the use, and by the gradual increase of the size, of the instrument; and by thus rendering the passage of the urine through the urethra more and more easy, the tendency to inflammation is subdued, and the indurated parts in and about the urethra become gradually absorbed; and I have found that, even where fistulous openings have existed in the perinæum, they have closed, and become

entirely obliterated, without any other treatment than the restoration of the urethra to its normal size.

I know that there are very good surgeons who are of opinion that very bad stricture is never entirely cured, but that, after a time, the parts relapse into their former morbid state; but I must think that the cause is either the omission of the surgeon strongly to enforce the necessity of occasionally, and indeed tolerably frequently, passing an instrument to preserve the advantage gained, or, as Mr. Cline used to call it, to keep up the right of way; or the neglect of the patient in not observing the directions so essential to his future comfort. It appears to me, then, that the cases in which the perinæal section is required are those in which no instrument can be passed into the bladder, and in which, under retention of urine, puncturing the bladder would be required.

It occurred to me, certainly more than thirty years ago (for it was at the Casualty Hospital, before the United Hospital was built) to have a case of retention of urine in a man who had for years suffered from severe stricture, and had often been in peril from retention. I could not then pass a catheter through any portion of the stricture; and, instead of puncturing the bladder, I cut on the point of the catheter in the perinæum anterior to the stricture, and continued the incision through the whole indurated mass; and, taking the centre of the arch of the pubes, under which the membranous part of the urethra passes, for my guide, I passed the catheter (which was still in the urethra) into the bladder, and retained it there; so that all the urine passed through it. I kept a catheter constantly in the bladder till the wound in the perinæum was entirely healed; I then passed a catheter once a day, afterwards every second day, and occasionally after the man left the hospital. The result was, that he passed his urine perfectly well, and lived some years without any further difficulty.

Not long afterwards, I had a similar case, which I treated in the same way, and with the same success. I have since had recourse to the same plan in cases of retention, but not always with the same success; for it frequently happens that cases of retention, requiring the puncture of the bladder, do not come into a hospital until there is little hope of relief, the urethra having given way, forming a tumour in the perinæum, or the urine become extravasated into the surrounding cellular membrane. In such cases, the perinæum has been freely divided; and, if they have lived, a catheter has been afterwards passed and retained in the bladder until the wound has healed. I believe retaining the catheter in the bladder during the whole time of the cure to be a most material point in all cases where the perinæal section has been made; for it facilitates the formation of a new urethra, which, if it do not become lined by a perfect mucous membrane, becomes a secreting surface, which prevents the irritating effects of the urine from keeping up inflammation, and thereby reproducing induration and stricture. I have known one case in which Mr. Syme performed the perinæal section, and kept the catheter in for one or two days only, and afterwards passed it from time to time; and in that case there was recurrence of the disease. I do not know if that be his present plan; but I feel convinced that keeping the catheter in the bladder until the wound in the perinæum is healed is essential to the obtaining perfect success.

I consider that cases requiring puncture of the bladder for retention would be better treated by the perinæal section where the retention is occasioned by long continued, indurated, and impassable stricture, than by puncturing the bladder; and, indeed, that many cases occur where it is advisable to perform the perinæal section, though there may not be entire retention of urine—where the strictured and indurated state of the urethra does not admit of the ordinary remedy. Gentlemen will, I am sure, understand that I do not include in the cases of retention, as requiring the section of the perinæum, those cases arising from less permanent obstruction, in which, if the bladder be emptied and the inflammatory symptoms allowed to subside, the obstruction may be removed by the use of bougies; there puncturing the bladder through the rectum gives the required relief speedily and safely, and affords time for employing the means for a permanent cure.

Another and very frequent cause of retention of urine is enlarged prostate. It does not, however, often happen that the puncture of the bladder is required, as in most cases the gum elastic catheter, without a stillette, and of an extra length, will, with care and perseverance, find its way through the enlarged and misshapened prostate; and, if not, the skill of the surgeon will enable him to pass a silver catheter. If neither can be attained, puncturing the bladder through the rectum is the best way to give immediate relief; and, after the inflammation of the prostate has subsided, the gum elastic catheter can readily be passed, and, after a time, the patient himself is enabled to pass it. I have known several persons who have for years used a gum elastic catheter, as the only mode of emptying the bladder.

I will conclude this paper by relating a case of prostatic disease in which I have had recourse to a different plan.

An elderly man, who had for a considerable time experienced difficulty in emptying his bladder, from disease of the prostate, was twice admitted into the United Hospital for retention of urine; and, as on neither occasion could an instrument be passed, the bladder was punctured through the rectum. The third time, he was admitted under my care. I could not pass a catheter; and as the bladder, then fully distended, occupied a space considerably above the pubes, I punctured it above the symphysis; and, after the escape of the urine, I passed a gum elastic catheter through the canula, and, withdrawing the latter, I secured the catheter in the bladder; and all the urine passed through it. After some time, the wound healed around the catheter, and the adjacent parts became consolidated; so that it was certain that the bladder had become permanently fixed above the pubes. I then withdrew the catheter; and, keeping a small piece of bougie as a plug in the opening, the man drew off his water with a female catheter as often as required. It soon became evident that there was no occasion to keep in the plug, as the opening was permanent, and no urine escaped excepting when the catheter was passed; nor did a drop of urine ever pass through the urethra. I had an opportunity of knowing that he lived two or three years after, without suffering any inconvenience.

The result of this case may suggest the question whether, in cases of diseased prostate, where the difficulty in passing a catheter is such that the patient is unable to accomplish it himself, and is unable to procure the constant attendance of a surgeon,—it may not be advisable to allow the bladder to be distended so as to project above the pubes, or to procure the same by injecting the bladder; and then to puncture above the pubis, with the intent of preserving a permanent opening, as in this case.

I ought, gentlemen, to apologise for occupying so much of your time in relating bygone events; but, as so much of the time and of the skill of surgeons is necessarily occupied with diseases of the bladder and the male urethra, I have not hesitated to bring the subject before you.

Discussion. Mr. STOCKWELL detailed a case of obstruction at the neck of the bladder. A patient, aged about 60, came under treatment in October last, for stricture. Ten years before, he had suffered in the same way, but was after a short time relieved. Since that period, he continued free from complaint until June last, when symptoms of stricture reappeared, and advanced until the time of his application for relief. He then was unable to pass more than a few drops of urine at a time, after great straining. The bladder was distended quite as high as the umbilicus, and no catheter had been able to be passed. On making pressure on the stricture, a few drops of urine escaped; but it was not until the next day that Mr. Stockwell was able to introduce a small gum elastic catheter through the stricture, and draw off a large quantity of healthy urine. The next day, there had been no desire to pass urine; so the catheter was again introduced; and this was obliged to be continued daily until No. 10 catheter could be easily passed. During this time, there was a good deal of inflammation of the mucous lining of the bladder, which by the early part of November had subsided; and the patient was instructed to pass a catheter twice in the twenty-four hours. Up to the present time, the patient had been obliged to continue this: the bladder had contracted so much that any attempt to retain urine more than twelve hours caused great suffering; but he was totally unable to void a single drop by ordinary efforts, or assisting them by pressure on the hypogastric region. On examination, there did not appear to be any lateral enlargement of the prostate; and a short catheter (No. 9) could be most readily passed; so that it was unlikely that an enlargement of the third lobe was the cause of the retention. It seemed to Mr. Stockwell that this was one of those cases which were described by the late Mr. Guthrie as bar at the neck of the bladder; the cause of retention being a fold of mucous membrane forming a valvular covering to the opening of the meatus, and in this case completely occluding the orifice, but offering no resistance to a catheter passed down the urethra. The cause of this might probably be found in the attack of inflammation which occurred during the treatment of the case;

or perhaps from the mucous membrane, by the long continued over-distension of the bladder, being thrown into membranous folds by its subsequent contraction.

Mr. George gave some particulars of two cases of neglected stricture, followed by habitual distension of the bladder and nocturnal incontinence of urine. The first of these occurred in a man of sixty, who, after a prolonged drinking bout, was seized with retention of urine, which continued for thirty hours. The retention never returned; but from that time the patient was troubled, while awake, with a frequent need to make water; and, during sleep, the urine escaped involuntarily. This state of things had lasted seven months before the case came under the observation of Mr. George, who desired the patient to pass urine in his presence, which he did to the extent of half a pint; but, on the subsequent introduction of a catheter, three pints more of alkaline urine were drawn off. No urine was voided for fourteen hours after the emptying of the bladder; and when the catheter was used, at the expiration of twenty-eight hours from its first introduction, only two pints were drawn off. On the third day, the quantity was reduced to a pint; and, by the end of a fortnight, the bladder had regained its full power of expulsion, though the urethra was not freed from contraction until many weeks had elapsed. The involuntary escape of urine during sleep never recurred after the first time that the contents of the bladder were completely evacuated. The second case occurred in a man of eighty-one, of vigorous constitution, who had long suffered from neglected stricture. In this instance, there had been no attack of retention; but the patient, whose habits of life were very temperate, was tormented by incessant desires to void his urine, and its involuntary escape during sleep. On introducing a catheter immediately after micturition, two pints of most offensive ammoniacal urine were drawn off, containing a large proportion of ropy muco-purulent deposit, owing to the length of time that the strictures had been unattended to, and the advanced age of the indivldual, the bladder had never regained its contractile power; but, the urethra having been for the last six years restored to a nearly healthy condition, the patient was now able to introduce a catheter every night before going to bed, and so free himself not only from incontinence during sleep, but also from any inclination to pass urine for the next sixteen hours. In both these instances, there existed great mental disturbance, which disappeared as soon as the urine had acquired a more healthy character.

Mr. Godfrey felt that the Society was much indebted to Mr. Norman for thus giving the results of his experience. He thought the golden rule, that "whenever any instrument, however small, could be passed through the urethra, others of sufficient size, by care and perseverance, could be used with success," was a maxim that held good as well now as in former days. The real difficulty was the maintaining a canal of sufficient diameter; and, drawing a wide distinction between the ordinary operation of opening the perinæum with the membranous portion of the urethra, for the immediate relief of retention of urine, and the well conceived operation of the perinæal section, by Mr. Syme, for the renewal of the canal, he considered that the result of either operation, *after a time*, equally required the care of the surgeon and the attention of the patient to maintain a fair diameter in the urethra. One point in the treatment of stricture, that he considered valuable, was the use of catheters, instead of sounds or bougies, where practicable, as thereby the bladder was well emptied, and a frequent source of irritation lessened. This applied to all cases, but more especially to those in which enlargement of the prostate coexisted, and the bladder, for this reason, was never well emptied.

Mr. Prichard remarked, that Mr. Syme's operation was the division of a stricture from without by a clean cut upon a grooved instrument already passed through the canal; and that Mr. Syme objected to any confusion between his operation and the operation of cutting into the urethra *beyond* the stricture to relieve retention. The latter proceeding Mr. Prichard had been called upon several times to adopt; and he considered it one of the most difficult operations in surgery.

Mr. Norman, in reply, stated his opinion that, where the stricture was of long standing, and characterised by extensive hardness and firmness, and no instrument could be passed into the bladder, passing a trocar into the bladder through the rectum was the appropriate treatment for such cases. The stricture and parts were hereby relieved; and it often happened that, in a few days or hours, a catheter could be coaxed through the stricture.

LETTERS AND COMMUNICATIONS.

Letters or communications for the Journal should be addressed to Dr. Wynter, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the Journal, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

British Medical Journal.

SATURDAY, JUNE 4th, 1859.

THE NEW WARRANT FOR REGULATING THE RANK AND PAY OF THE MEDICAL OFFICERS OF THE NAVY.

In recording events relating to the welfare of the medical profession, or of any of its individual members, the degree of satisfaction which accompanies the performance of the task must necessarily vary—even when that task is unexceptionably one of pleasure. And we do not remember to have ever had a more gratifying duty to perform, than that which devolves on us this day, of announcing the issue of a Royal Warrant for regulating the rank and pay of the naval medical officers. A new and bright era, in fact, has opened in the history of the medical department of Her Majesty's Navy; and years of patient endurance and earnest remonstrance have been rewarded by the concession of privileges and emoluments, which will render the junior members of the profession as eager, as they have hitherto been reluctant, to enter and remain in the service.

In order that an idea may be formed of the extent of the improvements effected, we will compare some of the principal regulations of the new warrant with those which were previously in force.

First, with regard to relative rank, there has been a general advance. The assistant-surgeon, for instance, ranks on entering, as hitherto, with a lieutenant in the army. He may, at the end of five years service on full pay, be promoted to the rank of surgeon, when he would at once stand at the level of a major; but, should he (which is very likely) not be so fortunate, he is in a measure consoled after six years service by being ranked with a captain in the army, and with a lieutenant in the navy. The surgeon of twenty years standing, with the designation of staff-surgeon, receives promotion from the relative army rank of captain to that of junior lieutenant-colonel; and an inspector-general of hospitals and fleets, on receiving his promotion to that grade, will henceforth find himself placed on the level which has hitherto been occupied by the Director-General of the Medical Department of the Navy. In order that the changes in relative rank may be at once understood, we have tabulated them from the warrant, and from the *Navy List* for April 1859.

Relative Rank of Medical Officers of the Navy.

	Relative Rank in Army.	
	Former.	*Present.*
Assistant-Surgeon . . .	Lieutenant . .	Lieutenant
Do. after 6 years service .	Lieutenant . .	Captain
Surgeon	Captain . . .	Major
Staff-Surgeon	Captain . . .	Lieut.-Col., jun.
Deputy-Inspector . . .	Major	Lieut.-Colonel
Do. after 5 years service .	Major	Colonel
Inspector	Lieut.-Colonel .	Brigadier-Gen.
Do. after 3 years service	Lieut.-Colonel .	Major-General

	Relative Rank in Navy.	
	Former.	*Present.*
Assistant-Surgeon . . .	Mate	Mate
Do. after 6 years service .	Mate	Lieutenant
Surgeon	Lieutenant . .	Commander
Staff Surgeon	Lieutenant . .	Capt., und. 3 yrs.
Deputy-Inspector . . .	Commander . .	Capt., und. 3 yrs.
Do. after 5 years service .	Commander . .	Captain
Inspector	Capt., und. 3 yrs. .	Commodore
Do. after 3 years service .	Capt., und. 3 yrs. .	Rear-Admiral

With the advancement in rank, there is an increase of pay. For the encouragement of any of our younger professional brethren who may be inclined to enter the navy, we have to inform them that their full pay, on entering as assistant-surgeon, will be only one penny a day less than has been hitherto allotted to officers of the same rank after ten years service,* and under the responsible condition of performing duty at the time in a ship unprovided with a full surgeon. The pay of an assistant-surgeon, under the regulations hitherto in force, varied, according to length of service, from 8s. 1d. to 10s. 1d. *per diem;* the extremes are now 10s. and 13s. A full surgeon (including staff-surgeon) has been entitled to a daily pay varying from 11s to 19s.: he will now commence on promotion with 15s., and after twenty-five years service on full pay, will be entitled, as staff-surgeon, to £1 : 5 *per diem.* A deputy-inspector has, previously to the warrant, received £1 a day; he will now have from £1 : 8 to £1 : 14: and the daily pay of an inspector is raised from the *minimum* of £1 : 11 : 6 and the *maximum* of £2 : 2, to the corresponding extremes of £2 and £2 : 5.

The half-pay has undergone a corresponding augmentation. For the sake of contrast, we will merely give the half-pay of an assistant-surgeon under the past and the present systems.

	Former.	*Present.*
	s. d.	*s. d.*
Under three years service - -	2 0	6 0
Above three do. do. - -	3 0	6 0
Under five do. do. - -	3 0	6 0
Above five do. do. - -	3 0	8 0
Above ten do. do. - -	4 6	10 0
Above twenty do. do. - -	5 0	10 0

In the foregoing respects and in all others, with the addition of a clause regarding prize-money, the provisions of the naval medical warrant are closely identical with those which were issued last year for regulating the rank and emoluments of the medical officers of the army. There are, indeed, merely such differences as unavoidably arise out of the constitution of the two services; but Sir John Pakington and his colleagues have certainly succeeded beyond our expectation in reducing these to a *minimum*, so as to place the medical service of the navy as nearly as possible on an equal footing with that of the army.

The only parts of the warrant which may seem to some at variance with its liberal spirit, are the clauses which restrict the honour and authority of the medical officer. Such restriction is, however, merely necessary for the preservation of discipline. Due care is taken that proper respect shall be paid to the medical officer; but special marks of honour are reserved for those who are the representatives of a royal service. Thus, for instance, the commander of a ship is rightly and of necessity held to be "superior in rank and precedence to every officer under his command."

* Where terms of service are mentioned, allusion is made to the entire service on full pay from the time of entering the navy as assistant-surgeon.

The new warrant, we have said, constitutes an era in the history of the naval medical department. Little more than half a century ago, the medical service of the British navy, if it may be said to have existed at all, was in a miserable state. During the fifty-four years which have elapsed since Lord Melville rescued the department from impending destruction, and gave it a standing ground, a few improvements have been made at long intervals: but while the other ranks of the naval service, as well as the medical staff of the army, have in general received that treatment which is alone calculated to ensure efficiency, the medical officers of Her Majesty's navy—especially the junior—have been systematically snubbed. And this has been, not from any want of remonstrance on their part, or of earnest pleading on their behalf on the part of the profession and of some honest and honourable members of the legislature; but from a dogged obstinacy on the part of Admiralty Lords, and a most insensate idea, that the discipline of the service would be endangered by extending the privileges of those on whose skill and care its efficiency in a high degree depends.

Now, however, the aspect is happily changed. The student who is reflecting how he shall employ himself after undergoing the ordeal of examination, will no longer look on the naval medical service as a last and desperate resource, honourable only in its abstract associations, and to be "cut" at the earliest opportunity. On the contrary, whether he enter the army or the navy, he will have the position and treatment of a gentleman and a member of a learned profession. There can be no doubt that the beneficial effect of the new warrant will be soon felt; and that we shall ere long cease to hear that Her Majesty's ships are occasionally unprovided with their proper complement of efficient medical officers. It has already been told us, indeed, that several recent recipients of diplomas have declared their intention of abandoning their previously formed schemes of civil practice for commissions in one of the public services. We can now honestly approve their intention, and advise industrious students in general to follow their example.

It would be wrong to conclude these remarks without a word of congratulation and of acknowledgment. Our hearty congratulations are offered to the medical officers of the navy; and not less to those, whether professional or lay, who have so long and earnestly striven to bring about the changes which the last year has witnessed. To the latter, also, sincere thanks are due; and especially to Drs. McWilliam and F. J. Brown in the profession, and to Colonel Boldero in past Parliaments, for the persistent zeal with which, under the greatest difficulties, they have advocated a righteous cause. And by no means must the part taken by Sir John Pakington, as First Lord of the Admiralty, and Sir John Liddell, as Director-General of the Medical Department of the Navy, be forgotten. To their honesty and independent sense of justice is due that happy consummation of years of patient waiting and toil which we have the happiness of recording to-day. For many years to come, the Naval Medical Warrant of 1859 will recal their names to the grateful remembrance of a profession, the value of which they have recognised, and the just claims of which they have honourably respected.

THE WEEK.

On Monday, the ever charitable Miss Burdett Coutts laid the foundation stone of the new Cancer Hospital at Brompton, adding another to the number of special hospitals already existing in London, and which, in due time, will hold out its hand in the *Times* advertisement sheet for the subscriptions of the benevolent. When one sees the long list of urgent appeals made through the columns of the press for aid in filling the beds of long established hospitals, we are at a loss to understand the policy which brings fresh almsmen into the field; and we think this remark applies with especial force to the Cancer Hospital just rising on the Brompton Road. If we are asked whether there is any necessity for such a hospital, we must reply in the negative. There is nothing in cancer which renders it necessary that a special hospital should be devoted to it. It cannot be pretended that the promoters of the institution have any special ability in the treatment of this disease. Can any one say that the existing Cancer Hospital, which is the parent of the one rising from the ground, has added one fact to our knowledge of this terrible scourge? We think not. Besides, where, we ask, is the necessity for a new hospital, when so many wards of the old hospitals are now empty? There are special wards in the Middlesex for this very class of cases, which are never full. We confess we look with the greatest distrust upon the multiplication of special hospitals, inasmuch as their tendency, as we think, is to destroy our appreciation of the unity of disease, and to throw great obstacles in the way of the medical student's acquiring a thorough knowledge of his profession. If, following in the wake of the old Egyptians, we make specialities of all the great leading diseases, and locate them in widely scattered buildings, how are our students ever to become conversant with their profession? Are they to spend all their time and money in riding in Hansom cabs from cancer hospitals to orthopædic, fistulic, ophthalmic, fever, or skin-disease institutions? In the large foreign hospitals, they never dream of thus dislocating the different forms of disease. Instead of special hospitals, they have special wards. Thus under one roof the student sees, without loss of time, every form of disease to which humanity is subject. We cannot, therefore, help repeating, that an immense injury is done to the profession by the needless multiplication of small special hospitals; and we cannot but hold those benevolent persons who aid in establishing them as responsible for bringing about a state of things which, we feel convinced, must be detrimental to our science, and to humanity itself.

The frightful tragedy which has just occurred at Ballinamore, Ireland, forms a singular commentary on the loudly reiterated assertion that the liberty of the subject is too easily violated in cases of alleged insanity. We are told that the asylums of England are full of persons who never ought to have been confined, and that the law must be so amended as to give greater freedom to such persons. From time to time we have brought under the notice of our readers the frightful crimes which have been perpetrated by maniacs allowed to be at large in obedience to the public voice, and now we have to record a fresh case—that of Mr. Ffrench, who has just taken the life of his agent, Mr. Burke, and further heightened the catastrophe by committing suicide. We are told that he has been insane for two years; and that, about a year and a half ago, he attempted the life of a policeman. The disease, it would appear, is hereditary, inasmuch as his grandfather, the late Lord Ffrench, committed suicide. The blood of the unhappy Mr. Burke is clearly upon the heads of those persons who, having lawful authority over Mr. Ffrench, allowed him to bide his time, and to embrue his hands a second time in human blood.

The following advertisement appeared last week in a cotemporary.

"WANTED immediately, by a Chemist at the East End, a Visiting and Dispensing ASSISTANT, possessing the M.R.C.S. Age from twenty to thirty. Salary, £50 per annum, including board and lodging. Address, A. Z., care of Messrs. Edwards, 67, St. Paul's Churchyard."

It is an old joke against Warren, the blacking-maker, that he kept a poet. A. Z., it is clear, is about to keep a member of the College. It may be asked what use A. Z. can have for such an expensive luxury? We have no doubt this aspiring druggist has a good counter-practice, which he intends to turn into back parlour consultations, his tame M.R.C.S. officiating. We recommend this ingenious method of evading the law to the attention of the London Medical Registration Association.

Association Intelligence.

EAST YORK AND NORTH LINCOLN BRANCH: ANNUAL MEETING.

The third Annual Meeting of this Branch was held at the Hull Infirmary, on Thursday, May 26th, at 2 P.M.; Thomas Sandwith, M.D., of Beverley, President, in the Chair. There were also present: J. P. Bell, M.D. (Hull); C. L. Brereton, Esq. (Beverley); Sir H. Cooper, M.D. (Hull); R. M. Craven, Esq. (Hull); O. Daly, M.D. (Hull); John Dix, Esq. (Hull); H. George, Esq. (North Thoresby); John Hill, Esq. (South Cave); J. F. Holden, Esq. (Hull); T. Jackson, Esq. (Welton); K. King, M.D. (Hull); J. A. Locking, Esq. (Hull); W. J. Lunn, M.D. (Hull); and John Morley, Esq. (Barton); and, as visitors, R. Atkinson, Esq. (Hull); and C. Kevern, Esq. (H.M.S. *Cornwallis*).

NEW MEMBERS OF THE BRANCH.

Messrs. C. L. Brereton (Beverley), F. Calvert (Beverley), and H. Gibson (Hull), were admitted members of the Branch.

MEETING IN 1860: ELECTION OF OFFICERS.

It was decided that the next annual meeting be held at Beverley. The election of officers terminated as follows:—*President:* W. H. Eddie, Esq. (Barton). *Representative in the General Council:* Sir H. Cooper, M.D. (Hull). *Secretary:* J. A. Locking, Esq. (Hull). *Committee:* J. P. Bell, M.D.; R. M. Craven, Esq.; O. Daly, M.D.; J. Dix, Esq.; R. Hardy, Esq.; and K. King, M.D.—all of Hull.

PRESIDENT'S ADDRESS.

The President read an address on Medical Antiquarianism, which will be published in the Journal.

PAPERS AND COMMUNICATIONS.

The following communications were made:—

1. Excision of the Knee-Joint as a Substitute for Amputation. By K. King, M.D.

2. Case of Harelip, in which a New Mode of Operation was employed. By John Dix, Esq.

The members and friends afterwards dined together at the Kingston Hotel.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Twenty-Seventh Annual Meeting of the British Medical Association will be holden in Liverpool, on Wednesday, Thursday, and Friday, the 27th, 28th and 29th days of July.

President—W. P. ALISON, M.D., F.R.S.E., Edinburgh.
President-Elect—JAMES R. W. VOSE, M.D., Liverpool.

The Address in Medicine will be delivered by EDWARD WATERS, M.D., Chester, President-elect of the Lancashire and Cheshire Branch.

The Address in Physiology will be delivered by A. T. H. WATERS, Esq., Liverpool, Lecturer on Anatomy and Physiology in the Royal Infirmary School of Medicine.

PHILIP H. WILLIAMS, M.D., *General Secretary.*

Worcester, April 26th, 1859.

LANCASHIRE AND CHESHIRE BRANCH.

THE Twenty-third Annual Meeting of this Branch will be held on Wednesday, June 8th, at the Town Hall, Chester, at Twelve o'clock at noon, under the presidency of E. WATERS, M.D.

The members and their friends will dine together after the meeting, at the Albion Hotel.

Gentlemen who intend to bring forward cases or communications are requested to send notice to the Secretary as early as possible. A. T. H. WATERS,

Honorary Secretary.

Liverpool, May 11th, 1859.

MIDLAND BRANCH.

THE Annual Meeting of this Branch will be held at Derby, at the Board Room of the Infirmary, on Thursday, June 23rd, at Two o'clock. The annual dinner will take place at the Royal Hotel at Five o'clock.

HENRY GOODE, M.B., *Honorary Secretary.*

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
LANCASHIRE AND CHESHIRE. [Annual Meeting.]	Town Hall, Chester.	Wednesday, June 8th, 12 noon.
BIRMINGHAM AND MIDLAND COUNTIES. [Annual Meeting.]	Hen and Chickens Hotel, Birmingham.	Friday, June 10th, 3½ P.M.
MIDLAND. [Annual Meeting.]	Board Room, Infirmary, Derby.	Thurs., June 23rd, 2 P.M.

[To prevent delay, Reports of Branch Meetings should be sent direct to the office, 37, Great Queen Street.]

Reports of Societies.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, MAY 2ND, 1859.

B. G. BABINGTON, M.D., F.R.S., President, in the Chair.

ON THE SUCCESSIVE EPIDEMICS OF YELLOW FEVER AMONG THE GARRISONS, ETC., IN BERMUDA DURING THE LAST FORTY YEARS.

BY GAVIN MILROY, M.D., F.R.C.P.

THE Bermuda islands are in lat. 32° N., and therefore nearly on the same parallel as Madeira to the east, and Charlestown, in South Carolina, to the west. They are about six hundred miles distant from the American coast. Four or five only of the group are inhabited; the rest, upwards of two hundred in number, are bare rocks. Besides the garrison, which of late years has usually been from 1,200 to 1,400, there is a large convict establishment, numbering about 1,800 persons. There is also an extensive dockyard and naval hospital on one of the islands. The general population, half of whom is black or coloured, amounts to between 10,000 or 11,000.

The prevailing diseases among the troops are bowel complaints; and then fevers and diseases of the respiratory organs, which are nearly equal as to frequency. The average sickness-rate has been such that every soldier may be said to be in hospital once in eight or nine months. The usual death-rate in the course of the year has been between three and four per cent. of the strength of the garrison. Most of the deaths are from fevers and diseases of the chest; and then bowel complaints are next in fatality.

The type of the ordinary fevers is very generally synochal or synochoid. Periodical fevers are rare. But besides the usual endemic fevers met with in all years, the Bermudas are subject to occasional visitations of yellow fever, which have been often most destructive. As the medical returns of the army do not go further back than 1817, the first epidemic of which there is any notice is that of 1819. It appeared among the troops at the beginning of August; and in six weeks from the beginning of that month to the end of September, a fourth of the entire garrison perished! As one in every second or third case proved fatal, nearly two-thirds of the troops were attacked. Unfortunately, no particulars are given of the circumstances which preceded or accompanied the outbreak; nor are we told anything respecting the results of the pestilence among either the naval establishment, the convicts, or the general population. On that occasion, as on all other like occasions, some persons supposed that the disease had been imported by a vessel from the West Indies (and 1819 was a notoriously sickly year there), but without adducing any evidence whatever.

The next epidemic visitation mentioned in the Army Medical Returns is that of 1843. It appears, however, that "early in October 1837, when H.M.S. *Pearl*, direct from England, arrived in Bermuda, the island (Ireland island, where the dockyard is situated) was in a very unhealthy state; and, as the ship's company were allowed to go on shore, a considerable number of cases of (what was believed to be) yellow fever occurred among them." The disease was regarded as of indigenous development; and no mention is made of suspected importation by vessels, although it is certain that Jamaica, Cuba, and other West India islands, had suffered from it in the course of the year.

Respecting the epidemic of 1843, the information in the Army and Navy Medical Returns is very meagre and unsatisfactory. Dr. MILROY had been told by Dr. King, who was then the principal medical officer of the navy on the station, that the outbreak of the fever had been preceded by the prevalence of unusually severe bowel complaints, many of the diarrhœa cases being of a well-marked choleraic character, and by a few cases of malignant and rapidly fatal cholera. The earliest cases of yellow fever occurred, about the end of July, in St. George's island, where the first cases had also appeared in 1819. It was again in August and September that the pestilence committed its great ravages,—the two months, it is worthy of remark, that the ordinary endemic fevers are usually most severe and fatal. A *seventh* part of the whole garrison was swept away in the course of a few weeks. The type of this endemic appears to have been less malignant than that of 1819, as the deaths were in the proportion of only one in every five or six cases. The medical chiefs of both services were decidedly of opinion that the pestilence sprang up spontaneously in the islands; and Sir William Reid, so well known to science by his works on *Storms*, who was then Governor, has recorded his opinion, that it could not be traced to importation.

Respecting the two last epidemics, those of 1853 and of 1856, we are fortunately possessed of much more exact and ample information, in consequence of the Colonial Ministers having, on both occasions, ordered a special investigation by commissioners on the spot, and of their reports having been printed by order of Parliament. Both documents contain much valuable instruction, and especially upon those very points which stood most in need of elucidation, viz., the origin or development of the disease, its progress, with the causes which favoured its spreading, and the best means of investigating its invasions in the future.

In 1853, the appearance of the epidemic was preceded by an unusual prevalence of aggravated bowel diseases, and by some fatal cases of cholera, as in 1843. The fever appeared first among the convicts, and proved very destructive; out of 1778, 161 perished. But the ravages among the garrison were much greater; for out of 1517, no fewer than 365 died, and this in the course of six or seven weeks! The chief cause of this excessive mortality was *proved* to be the unwholesome state of the barracks. The details will be found in the official report. In the epidemic of 1856, the garrison suffered very little, although the convicts again experienced a heavy loss, and the

disease proved fatal to the inhabitants in some of the islands. The preservation of the troops was greatly owing to removing them from the barracks at, or rather before, the commencement of the epidemic, and camping them on healthy ground, and frequently changing the site of the camps.

The history of the successive outbreaks in Bermuda accords, in many respects, with that of the repeated invasions of the disease in the early part of the present century among the garrison of Gibraltar. In both places it always begins about autumn, between July and October; and its manifestation was on no occasion traced to importation by sick or infected persons, although the arrival of foul and diseased vessels was very often believed to be connected with it; and the great importance of anticipative hygienic precautions in a threatened locality, and of early camping out troops in the sickly months, was strikingly shown.

Dr. McWilliam observed, that although in neither of the epidemics of 1853 and 1856 was the importation of the disease clearly traced to any of the inculpated vessels, and that the case against those vessels must stand therefore as "not proven;" yet the history of both of those outbreaks furnishes facts which ought not to be hastily dismissed. For instance, of the witnesses examined in the epidemy of 1853, by the Commissioners of Inquiry, thirty-eight were in favour of, and four against the doctrine of communication. The cause of the disease at Bermuda appeared to furnish several instances of contagious propagation; and the number of persons attacked by fever at the Naval Hospital (which in point of situation and sanitary condition is unexceptionable) was remarkable. His friend Dr. Hilditch, Inspector-General of the Naval Hospital, who is a non-contagionist, in his evidence before the Commissioners, had stated, that "eight out of ten persons employed in the wards of the hospital were attacked, and two died. All the naval officers were attacked; the steward of the hospital contracted the disease and died; his mother-in-law and brother-in-law, living in the same house with him, were attacked and both also died." The Commissioners, "without undertaking to affirm that yellow fever could not be imported, were not satisfied that on the occasion in question it was so introduced," and considered that "the point was still involved in much obscurity." Towards the conclusion of their Report they observe:—"Considering the great preponderance of the opinion as to the communicability of yellow fever, of the type which prevailed here last year, and the certainty that small-pox and other eruptive fevers are contagious, and can be imported into this colony, the Commissioners are convinced that more stringent and effective quarantine regulations than those which now exist would be conducive to the public welfare." The Commission appointed to inquire into the epidemy of 1856 reported that the disease originated at Bermuda. The Attorney-General, one of the Commissioners, judging from his previous experience of yellow fever at Bermuda during several visitations, and considering it an established fact that the outbreaks of epidemic yellow fever there had been usually, if not invariably, preceded by the arrival at Bermuda of some ship with yellow fever on board, qualified in some degree, on his own part, the opinion expressed in the Report. The Governor and Commander-in-chief also recorded the fact "that on no occasion has yellow fever appeared in Bermuda without having been immediately preceded by the arrival of ships infected with that disease". There was a variety of opinion among the medical men examined; and Dr. Rees, deputy-inspector of the naval hospital, who is strongly opposed to the view of contagion, gave evidence to the following effect: "That, out of sixty-two general patients (*i. e.*, other patients than yellow fever patients) admitted between August 1st and December 13th, fifteen sickened of yellow fever, and four died; and, this proportion being too large to be ascribed to the epidemic constitution, and seeing that the sanitary condition of the hospital was unexceptionable, I can only infer that the emanations from the sick must have served either to contaminate the atmosphere within the hospital, or to give to the disease itself superadded infectious properties to a limited extent." Latterly, Dr. Rees removed all the general patients out of the hospital into an empty house in the neighbourhood; and it is worthy of observation, at least, that none of these were attacked. Dr. McWilliam considered that Dr. Rees' facts looked more like evidence, both positive and negative, in favour of contagious propagation, than anything else.

After some remarks from Dr. Greenhow, Dr. Logan, Dr. Babington, Mr. Radcliffe, and Dr. J. Bird, the meeting adjourned at ten o'clock.

Editor's Letter Box.

MEDICAL SOCIETIES AND OUR BRANCHES.

Letter from W. A. Greenhill, M.D.

Sir,—I am very glad to see that, in your leading article today, you have given your readers some observations on the connexion that might spring up between the British Medical Association and the numerous medical societies that are in existence throughout the kingdom. The subject is one of great importance; and it will be indeed a most happy circumstance for the Association if any means can be devised for bringing about the union which you so earnestly recommend. In order to illustrate more fully the practical working of your proposition, I will mention the case of three societies which have been flourishing for some years within the district allotted to the South-Eastern Branch, and each of which seems to possess one very important element of perpetuity in the shape of a good permanent library. Let us see how these three societies stand with respect to the British Medical Association.

In July 1858, the Association had sixty-nine members in the county of Sussex. At the same time (or rather, during the preceding year), the number of the members of the Brighton and Sussex Medico-Chirurgical Society was, exclusive of honorary members, sixty-five, of whom only twenty-two, or about 34 per cent., appeared to have belonged to the Association. In the case of the East Sussex Medico-Chirurgical Society, the Association had only six members out of thirty-seven, or about 16 per cent. In Kent, the number of the members of the Association was eighty-five; and the members of the East Kent and Canterbury Medical Society were twenty-four, of which number only five, or about 21 per cent., were members of the Association also.

Probably this is nearly the same state of things that exists elsewhere; and it is manifest how much the influence and importance of the Association would be increased if a large proportion of the members of these societies could be persuaded to join it. But how to induce them to do so will, I fear, be found a difficulty. It is hardly likely that many persons in the provinces will pay a *second* guinea every year for the sake of belonging to the Association; neither is it probable that many of the town members of these societies will transfer their subscription to the Association in preference to them.

I wish that you had suggested a remedy for this difficulty, or that you would do so; for it seems to me that, at present, the medical societies stand so much in the way of the Association, that it will be worth while to get them to join it almost on their own terms. Till any better mode is devised of doing this, I would suggest that those members of these societies who do not want to receive the British Medical Journal should be allowed to join the Association at a considerably reduced rate of subscription. To gentlemen in the country, or where no circulation of the medical periodicals takes place, the Journal is of course a valuable boon; but in Hastings, for instance, where each member has the advantage of seeing all the chief medical periodicals, which are afterwards carefully preserved, it would be unnecessary to send eighteen or twenty copies of the Journal, when a single copy of the other periodicals is found sufficient for the requirements of our Society.

I need not enter into any further details at present, and I am quite aware of various objections that can be brought against the plan which I have ventured to propose. As, however, I am convinced that the prosperity of the Association would be greatly promoted by effecting some such union as you have pointed out, I have taken the liberty of offering these remarks, in the hope that a thorough ventilation of the subject may tend to bring about so desirable an object.

I am, etc., W. A. Greenhill.

Hastings, May 28th, 1859.

TREATMENT OF CEREBRAL DISEASE IN A CHILD.

Letter from W. F. Cleveland, Esq.

Sir,—In the last number of the Journal, under the "Illustrations of Hospital Practice", there is an interesting case of cerebral disease by Dr. Jenner, in which no mention is made of the treatment that was adopted. As the child was much benefited by her stay in the hospital, it is desirable to know if any, and what remedies, were used. I am, etc.,

W. F. Cleveland.

23, Beaufoy Terrace, Maida Vale, May 30th, 1859.

IS THE LONDON COLLEGE OF PHYSICIANS APPLYING FOR A NEW CHARTER?

SIR,—Is the London College of Physicians applying, or about to apply, for a new charter? By the 47th section of the Medical Act, fellows or licentiates of the Edinburgh or Dublin Colleges may, on payment of a fee of £2, obtain the diploma of the London College under any new charter which it may receive. As I find that four fellows of the Edinburgh College —Drs. Chadwick, Cormack, Priestley, and Winslow—were last week elected by ballot licentiates of the London College, the inference is that no new charter is in contemplation. These gentlemen have voluntarily submitted to the ordeal of a ballot, and the payment of a considerable fee, to obtain a title which by the Medical Act they could claim as a right for the small sum of two pounds, whenever the London College gets its new charter. I am, etc., ARGUS.

London, June 1st, 1859.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

** In these lists, an asterisk is prefixed to the names of Members of the Association.*

BIRTHS.

BLAGDON. On May 25th, at Stroud, Gloucestershire, the wife of Richard Blagdon, Esq., Surgeon, of a daughter.

FLEMMING. On May 22nd, at Freshford, near Bath, the wife of *T. H. Flemming, M.D., of a daughter.

MARSHALL. On May 29th, at 10, Savile Row, the wife of John Marshall, Esq., Surgeon, of a son.

MARRIAGES.

CROFT—CROFT. Croft, Thomas, M.D., of Bracknell, Berks, to Eliza, second daughter of George Thirmbeck Croft, Esq., of Slough, on May 24th.

KENNEDY—HAYES. Kennedy, William, Esq., Surgeon, of Dublin, to Grace Marian, eldest daughter of the Hon. Mr. Justice Hayes, of Dublin, on May 24th.

SYMPSON—PEACOCK. *Sympson, Thomas, Esq., Surgeon to the General Hospital, Lincoln, to Caroline, third daughter of the late Rev. Edward Peacock, vicar of Fifehead Magdalene, Wilts, at Road Hill, Wilts, on May 24th.

WILKINSON—DICKSON. Wilkinson, the Rev. Joseph, rector of Christchurch, to Wilhelmina Catharine Tracey, youngest daughter of the late Sir David J. H. Dickson, M.D., at Hougham, near Dover, on May 31st.

WILSON—PARTRIDGE. Wilson, Frederick W., M.B., of East Grinstead, Sussex, to Ellen, youngest daughter of the late James Partridge, Esq., of Northmolton, Devon, at Exeter, on May 26th.

DEATHS.

MUTTER, Thomas D., M.D., Emeritus Professor of Surgery in the Jefferson Medical College of Philadelphia, aged 59, on March 16th.

TIERNEY, John Francis, Esq., Bengal Medical Service, at Berhampoor, on April 9th.

APPOINTMENTS.

*CLAPTON, Edward, M.D., elected Physician to the Surrey Dispensary.

WHITLEY, George, M.D., elected Physician to the Surrey Dispensary.

PASS LISTS.

ROYAL COLLEGE OF PHYSICIANS. The following gentlemen were elected Licentiates of the College, on May 18th:—

HAKE, Thomas Gordon, M.D., Spring Gardens
HOOPER, John, M.D., Hoddesdon, Herts
MITCHELSON, George Frederick, M.D., Bayswater
PARSONS, Samuel, M.D., Clarges Street
PORTER, John Henry, M.D., Cheltenham
POWELL, Robert H., M.D., Wyndham Place, Bryanstone Square
SHERLOCK, James, M.D., Worcestershire County and City Asylum, Powick
STILLWELL, James G., M.D., Moorcroft, Hillingdon, Middlesex
STOOKES, Alexander Richard, M.D., Liverpool
SUTTON, John Maule, M.D., Tenby, Pembrokeshire
WATERS, John, M.D., Bedford Square
WHITEHEAD, James, M.D., Manchester

Also, on May 23rd:—

BANKS, John Tatum, M.D., Crawley, Sussex
CHADWICK, Charles, M.D., F.R.C.P.E., Leeds
COOPER, Thomas Henry, M.D., Slough, Bucks
CORMACK, John Rose, M.D., F.R.C.P.E., Ampthill Square
DOWN, John Langdon Haydon, M.D., Earlswood, Redhill
DRAKE, Augustus, M.B. and L.M., Exeter
EVANSON, Richard Tonson, M.D., Torquay
FOREMAN, Robert Clifton, M.D., Brighton
GEE, Robert, M.D., Liverpool
GOOCH, William Henry, M.D., Dawlish, South Devon
GREENWOOD, Henry, M.D., Blackheath
GUY, Thomas, M.D., Rochester
HARLEY, George, M.D., Harley Street
INMAN, Thomas, M.D., Liverpool
KENNION, George, M.D., Harrogate
KING, Henry Stavely, M.D., Lower Grosvenor Street
KINGSLEY, George Henry, M.D., Bridgewater House
LONEY, William, M.D., H.M.S. *Arrogant*
LUCAS, T. Prestwood, M.D., Brecon, South Wales
NOOTT, William Francis, M.D., Alverstoke
NORTON, Robert, M.D., Bayswater
OGDEN, James, M.D., Manchester
PEIRSON, Thomas Tranmar, M.D., Bridlington Quay, Yorkshire
PICKERING, John, M.D., Royal Military College, Sandhurst
PLOMLEY, Francis, Ext. L.R.C.P., Maidstone
PRIESTLEY, William O., M.D., F.R.C.P.E., Somerset Street, Portman Square
PURDIE, Robert, M.D., Blackheath
RAMSAY, W. Fred. Hutcheson, M.D., Somerset Street, Portman Square
SHEPPARD, Edgar, M.D., Hanover Terrace, Regent's Park
SYKES, John, M.D., Doncaster
WINSLOW, Forbes B., M.D., F.R.C.P.E., Cavendish Square

ROYAL COLLEGE OF SURGEONS. MEMBERS admitted at the meeting of the Court of Examiners, on Friday, May 27th, 1859:—

BLACKSTONE, Joseph, Gloucester Road, Regent's Park
BRIGHT, John Meaburn, West Dulwich
BRONNER, Edward, Bradford, Yorkshire
GROVES, William, Knaresborough
McKEE, Richard Gooddy, Royal Navy

At the same meeting of the Court—

GRANVILLE, Augustus Bozzi, M.D., of Curzon Street, May Fair, who was admitted a member in 1813, and subsequently disfranchised on becoming a Licentiate of the Royal College of Physicians in 1817, was re-admitted a member of this College.

LICENTIATES IN MIDWIFERY admitted at a meeting of the Board, on June 1st:—

BARTER, Clement Smith, Bath: diploma of membership dated April 18th, 1859
BRIGSTOCKE, Richard Whish, Milford, Pembrokeshire: March 14th, 1859
BROOKS, Bransby, Guy's Hospital: April 11th, 1859
CANDY, John, Camden Road, Holloway: April 18th, 1859
CHAPPELL, John James, Axmouth, Devon: April 10th, 1857
CLAPP, William John, Newport, Monmouthshire: December 18th, 1854
DALE, Thomas, Liverpool: February 28th, 1859
DODSWORTH, Frederick Charles, Turnham Green: December 20th, 1858
GODFRAY, Charles Le Vicomte, Jersey: April 18th, 1859
GODRICH, Henry, West Brompton: March 14th, 1856
HUDSON, George, Newport, Yorkshire: April 15th, 1859
LARKIN, Henry William, Bilston, Staffordshire: February 25th, 1859
MARSHALL, Edmund Henry, Kelvedon, Essex: August 6th, 1858
SARVIS, Thomas, Waterloo Town: May 17th, 1850

APOTHECARIES' HALL. Members admitted on Thursday, May 26th, 1859:—

ADAMS, Matthew Algernon, Margate
BRINGLOE, John, Camberwell
CARTER, Alfred Pleydell, Gloucester
CHARLTON, Egbert, Tunbridge
GOODALL, Ralph, Newcastle, Staffordshire
GRIFFITH, Hugh, Edeyrns, near Pwllheli, Carnarvonshire
HOLMAN, Thomas, Easthothly, Sussex
LOVEGROVE, Charles, Maidenhead, Berks
PARKER, Roger, Liverpool
READ, S. Cartwright, Hemel Hempstead, Herts
STERLING, Hautville Howe John, Deal

At the same Court, the following gentlemen passed their first examination:—

HARRIS, Francis Douglas, Gower Street, Bedford Square
MURRAY, William, Chester-le-Street

HEALTH OF LONDON:—WEEK ENDING MAY 28TH, 1859.

[*From the Registrar-General's Report.*]

THE mortality of the London districts has constantly decreased in the successive weeks of May. In the first week of the month, the deaths registered were 1108; in the fourth week, that ended last Saturday, they were 1028. In the ten years 1849-58, the average number of deaths in the weeks corresponding with last week was 1017; but as the deaths returned for last week occurred in a population which has increased, they can only be compared with the average raised in proportion to that increase; namely, with 1118. The public health is therefore so far in a favourable state, that the deaths that occurred last week were less by 90 than the number that would have occurred if the average rate of mortality as estimated for the end of May had prevailed.

The deaths that were recorded last week as caused by zymotic diseases, amounted to 238; the corrected average for corresponding weeks is 257. Those referred to diseases that affect the respiratory organs, were 130; the corrected average is 172. This latter comparison excludes phthisis, the deaths from which were 130, the average being 153. Scarlatina was fatal in 50 cases, nearly half of which occurred on the south side of the river. Four of these occurred in Wandsworth, and four deaths from measles in Putney. Thirteen cases in which diphtheria is returned as the fatal disease, occurred as follows:—one at 8, High Street, Notting Hill; one at 20, Hanover Street, Belgravia; one, on 24th April, at St. George's Hospital; one at 10, John Street, Tottenham Court Road; one at Acorn Cottage, Shacklewell Green; one at 13, Barking Churchyard; one at 1, Short Street, Shoreditch; one at 78, Long Alley, Shoreditch; one at 55, Forston Street, Hoxton New Town; one at 5, Falcon Terrace, Newington; one at 28, Surrey Grove, St. Peter, Walworth; one at 11, Brad Street, Lambeth; and one at 9, Wellington Street, Greenwich.

Three deaths from intemperance were registered in the week, besides five in which the cause of death is entered as "delirium tremens"; five infants and two adults died from syphilitic disease; three infants were murdered. Of four nonogenarians who died, the oldest were a woman, 94 years, and a man, 95 years of age.

Last week the births of 966 boys and 916 girls, in all 1,882 children, were registered in London. In the ten corresponding weeks of the years 1849-58, the average number was 1,549.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·791 in. The barometer fell from 29·95 in. on Sunday to 29·59 in. on Saturday, these being the highest and lowest points in the week. The mean temperature of the week was 56·1°, which is 1·5° above the average of the same week in 43 years (as determined by Mr. Glaisher). The thermometer in the shade fell to its lowest point 40·5° on Monday, and rose to its highest 73·8° on Friday. The range of the week was therefore 33·3°. The mean daily range was 26·5°; the range on Tuesday was 31·5°. The mean dew-point temperature was 48·5°, and the difference between this and the mean air temperature was 7·6°. The mean degree of humidity of the air was 75. On the last two days, the humidity varied from 59 to 93. The wind was generally in the north-east. No rain was measured till Saturday, when the amount was 0·13 in.

THE MEDICAL SERVICE OF THE NAVY.

THE *London Gazette* of May 27th, contains the following warrant:—

At the Court at Buckingham Palace, the 13th day of May 1859; present the Queen's Most Excellent Majesty in Council;

Whereas there was this day read at the Board a Memorial from the Right Honourable the Lords Commissioners of the Admiralty, dated the 12th of May 1859, in the words following, viz.:—

"Whereas we have had under our consideration the necessity of assimilating, as far as possible, the relative ranks and rates of pay and half-pay of the Medical Officers of your Majesty's Navy and Army.

"And whereas we are of opinion that it would be for the advantage of your Majesty's service that the following regulations should be adopted for the Medical Officers of the Royal Navy, viz.:—

"1. That there shall be four grades of Medical Officers, viz.:—

1. Inspector-General of Hospitals and Fleets.
2. Deputy Inspector-General of Hospitals and Fleets.
3. Surgeon, who, after twenty years service on full-pay, ten of which in the rank of Surgeon, shall be styled Staff-Surgeon.
4. Assistant-Surgeon.

"2. That no candidate shall be admitted to the examination for a commission in the Medical Department of the Royal Navy who does not possess such a diploma as would qualify a civilian to practise medicine and surgery; and no such candidate shall receive a commission as assistant-surgeon until he shall have satisfactorily passed an examination in naval surgery and hygiene before a board of examiners appointed by the Lords Commissioners of the Admiralty.

"3. That no assistant-surgeon shall be eligible for promotion to the rank of surgeon until he shall have passed such examination as the Lords Commissioners of the Admiralty may require, and shall have served on full pay with the commission of assistant-surgeon for five years, of which two, at least, shall have been passed on board one of your Majesty's sea-going ships.

"4. That no surgeon shall be eligible for promotion to the rank of Deputy-Inspector General of Hospitals and Fleets until he shall have served ten years in your Majesty's navy on full-pay, of which three at least must have been passed in one of your Majesty's ships, on some one or more foreign stations, with the rank of surgeon.

"5. That no Deputy Inspector-General of Hospitals and Fleets shall be eligible for promotion to the rank of Inspector-General until he shall have served five years at home, or three years abroad, in the rank of Deputy Inspector-General.

"That in cases of emergency, however, or when the good of your Majesty's service may render such alteration desirable, it shall be competent for the Lords Commissioners of the Admiralty to shorten the several periods of service above-mentioned in such manner as they shall deem fit and expedient.

6. That the rates of full-pay of the Medical Officers of your Majesty's navy shall, in future, be in accordance with the following schedule:—

"FULL-PAY.

"Inspector-General of Hospitals and Fleets.—After thirty years service on full-pay, £2:5; after twenty-five years service on full-pay, £2:5; after twenty years service on full-pay, £2; or on promotion, should these periods of service not have been already completed.

"Deputy Inspector-General of Hospitals and Fleets.—After thirty years service on full-pay, £1:14; after twenty-five years service on full-pay, £1:10; after twenty years service on full-pay, £1:8; or on promotion, should these periods of service not have been already completed.

"Staff-Surgeon.—After twenty-five years service on full-pay, £1:5; after twenty years service on full-pay, £1:2.

"Surgeon.—After fifteen years service on full-pay, 18*s.*; after ten years service on full-pay, 15*s.*; or on promotion, should these periods of service not have been already completed.

"Assistant-Surgeon.—After ten years service on full-pay, 13*s.*; after five years service on full-pay, 11*s.* 6*d.*; under five years service on full-pay, 10*s.*

"7. That every medical officer on the active list, now on

half-pay, and those who may be placed on it subsequently to the date of your Majesty's Order in Council authorising this proposal, shall be allowed the half-pay to which his period of service on full-pay shall entitle him, according to the following schedule.

"HALF-PAY.

"Inspector-General of Hospitals and Fleets.—After thirty years service on full-pay, £1:17:6; after twenty-five years service on full-pay, £1:13:6; after twenty years service on full-pay, £1:10; or on promotion, should these periods of service not have been already completed.

"Deputy Inspector-General of Hospitals and Fleets.—After thirty years service on full-pay, £1:5:6; after twenty-five years service on full-pay, £1:2:6; after twenty years service on full-pay, £1:1; or on promotion, should these periods of service not have been already completed.

"Staff-Surgeon.—After twenty-five years service on full-pay, 18*s.* 6*d.*; after twenty years service on full-pay, 16*s.* 6*d.*

"Surgeon.—After fifteen years service on full-pay, 13*s.* 6*d.*; after ten years service on full-pay, 11*s.*; or on promotion, should these periods of service not have been already completed.

"Assistant-Surgeon.—After ten years service on full pay, 10*s.*; after five years service on full pay, 8*s.*; under five years service on full-pay, 6*s.*

"8. That with a view to maintain the efficiency of the service, all medical officers of the ranks of staff-surgeon, surgeon, and assistant-surgeon, shall be placed on the retired list when they shall have attained the age of sixty years; deputy inspectors-general shall be placed on such retired list when they shall have attained the age of sixty-five years; and inspectors-general when they shall have attained the age of seventy years. Officers thus superannuated shall receive the rates of half-pay mentioned in the preceding schedule.

"9. That the relative rank of the medical officers of your Majesty's navy shall be similar to that conferred upon the medical officers of the army, and shall be as follows:—

"An assistant-surgeon shall rank as a lieutenant in the army, according to the date of his commission, and after six years service on full-pay, as a captain in the army, according to the date of the completion of such service.

"A surgeon shall rank as major in the army, according to the date of his commission; and a staff-surgeon, as lieutenant-colonel, but junior of that rank.

"A deputy inspector-general of hospitals and fleets shall rank as lieutenant-colonel, according to the date of his commission; and after five years service on full-pay as deputy inspector-general, shall rank as colonel, according to the date of completion of such service.

"An inspector-general of hospitals and fleets shall rank as brigadier-general, according to the date of his commission; and after three years service on full-pay as inspector-general, shall rank as major-general, according to the date of completion of such service.

"Provided always that no naval medical officer, while borne on the books of one of Her Majesty's ships, or employed on establishments on shore, shall be deemed superior in rank to the officer appointed to command such ship or establishment; but such commanding officer shall, under all circumstances, be held to be superior in rank and precedence to every officer under his command.

"10. That such relative rank shall carry with it all precedence and advantages attaching to the rank with which it corresponds, and shall regulate the choice of quarters, rates of lodging-money, servants, forage, fuel, and light, or allowances in their stead, when medical officers of the navy may be employed on shore on joint service with your Majesty's land forces; but that medical officers serving in the fleet shall, notwithstanding the relative rank thus conferred upon them, in all such details, and also in all matters relating to the duties of the fleet and the discipline and interior economy of your Majesty's ships, be subject, as heretofore, to the authority of any executive officer of the military branch while on duty, under the general regulations which may from time to time be prescribed by the Lord High Admiral, or the commissioners for executing the office of Lord High Admiral; and that medical officers shall share prize-money according to the proclamation or proclamations which may be in force for the time being, for regulating the distribution of the proceeds of prizes in the Royal navy.

"11. That medical officers shall be entitled to the same allowances, on account of wounds and injuries received in action, as combatant officers holding the same relative ranks.

"12. That the families of medical officers shall in like manner be entitled to the same allowances as granted to the families of combatant officers holding the same relative ranks.

"13. That medical officers shall be held entitled to the same honours as other officers of the Royal navy of equal relative rank.*

"14. That a medical officer retiring after a full-pay service of twenty-five years, may, in cases of distinguished service, receive a step of honorary rank, but without increase of half-pay.

"15. That good-service pensions shall be awarded to the most meritorious medical officers of the Royal navy, under such regulations as shall, from time to time, be determined upon, on the recommendation of the Lord High Admiral, or the commissioners for executing that office.

"16. That four of the most meritorious medical officers of the Royal navy shall be named honorary physicians, and four honorary surgeons, to your Majesty.

"We do therefore most humbly submit that your Majesty will be graciously pleased, by your Order in Council, to grant us the necessary authority for carrying the foregoing regulations into effect; the Lords Commissioners of your Majesty's Treasury having signified their concurrence."

Her Majesty having taken the said Memorial into consideration, was pleased, by and with the advice of Her Privy Council, to approve of what is therein proposed; and the Right Honourable the Lords Commissioners of the Admiralty are to give the necessary directions herein accordingly.

WM. L. BATHURST.

UNIVERSITY OF ST. ANDREWS:—MEDICAL EXAMINATION PAPERS. MAY, 1859.

THE following were the questions proposed to the candidates for the degree of M.D. at the recent examinations:—

First Examination. First Part. A passage from Celsus, *De Medicinâ* (lib. ii, cap. x—"Incidenda ad medium" to end of chapter), to be translated into English. Give the derivations and primary meanings of the following words: Azote, Cyanogen, Diabetes, Ethmoid, Hypogastric, Menorrhagia, Parotid, Peritoneum, and Parthenogenesis.

Second Part. *Chemistry.* 1. What compounds does nitrogen form with oxygen, with hydrogen, with carbon, and with chlorine? State the composition of each. 2. Enumerate the alkalies and alkaline earths; and state what you understand by an alkali, a base, and a radical. 3. How is hydrocyanic acid prepared? Give a process for ascertaining the exact strength of a sample. 4. Give the tests for salts of copper. *Materia Medica and Therapeutics.* 1. What medicines have been employed either to counteract the predisposition to the formation of calculi; or to effect the solution or disintegration of urinary concretions within the body? Explain the *modus operandi* of such medicines. 2. What are the therapeutic uses of (1) hydrochlorate of ammonia, (2) iodide of iron, (3) the preparations of arsenic, (4) prussic acid, (5) aconite, and (6) strychnine? 3. Write Latin prescriptions, without using symbols or abbreviations, for a mixture containing strychnine, and for a dozen pills containing extract of nux vomica.

Second Examination. Anatomy and Physiology. 1. Describe the anatomical relations and the functions of the principal branches of the fifth pair of nerves. 2. Describe the muscles of the leg which by their rigidity or contraction may give rise to the different varieties of club-foot. 3. Describe the iris and retina, and state what you know regarding their minute structure. 4. Describe the structure and uses of the glands of the skin. 5. What are the objects of the process of absorption, and in what different ways is this process effected?

Third Examination. (N.B. In answering the practical questions, the examiners require every candidate to specify the mode of treatment, which he is in the habit of adopting, and the doses of the medicines which he prescribes.) *Pathology, and Practice of Medicine.* 1. Mention the principal signs and symptoms known to you of aneurism within the thorax, and indicate their bearing upon the diagnosis with regard to the position and relations of the aneurism. 2. Describe the course of the symptoms, and indicate the treatment, of delirium tremens. 3. What are the principal causes of perforation of the

* This clause does not extend to the compliments to be paid by garrison or regimental guards, as laid down in pages 29 and 30 of your Majesty's regulations for the army, nor to corresponding honours paid on board your Majesty's ships.

alimentary canal? Given the symptoms of perforation, how would you proceed to discover its actual mode of origin in a particular case? 4. Describe and contrast eczema, impetigo, scabies. Indicate shortly the treatment of each.

Fourth Examination. Surgery. 1. Describe the early symptoms, progress, and results of scrofulous disease of the vertebræ. 2. Enumerate and describe the different kinds of cancer which affect the external parts of the body: mention the regions in which each is chiefly found; and the circumstances in which you would consider it judicious to employ the knife or escharotics in the treatment. *Midwifery.* 3. In what circumstances is it advisable to induce premature labour, and by what different methods may it be accomplished? 4. What changes take place on the mamma and nipples during pregnancy and after delivery; and what are the differences between the milk secreted immediately after parturition and that subsequently yielded?

Fifth Examination. Cases. 1. A child, aged 5, has been delicate from the period of teething; apt to suffer from diarrhœa, disposed to feverishness from slight exciting causes. Once or twice it has been threatened with convulsions; and hooping-cough was followed by protracted chronic bronchitis, with shortness of breath and increased feverishness and emaciation. Present symptoms are restlessness, somnolency, alternating with fits of screaming and tossing; the child is irritable, and complains of the head; appetite is lost, and bowels are constipated; the face is flushed, pulse 120, but very variable both in strength and frequency; expression vacant, pupils sluggish and slightly dilated; eyes generally closed, and face averted from the light; there is great thirst, and vomiting (which in the course of the illness has frequently occurred) is now less frequent; skin hot and dry; abdomen shrunk; no convulsion; no paralysis. Remark on the diagnosis of this case, in such a manner as to give your ideas of the significance of each fact recorded above. State also the prognosis, and the probable condition of the organs in head, chest, and abdomen. Sketch out the general course of treatment applicable to such a case. 2. A young woman has had a chronic cough, chiefly during winter and spring, for three years; the chest has been repeatedly examined without any disease of the lung, beyond slight catarrh, being discovered; but there is suspicion of tubercular disease. Of late there has been an aggravation, marked by suddenly developed pain in the right side, with severe dyspnœa; percussion of right side of thorax not dull as compared with left; in front and at some points of lateral region faintly tympanitic; respiratory murmur almost universally absent on right side; on left rather exaggerated. What is the most probable view of the cause of the aggravation in this case; what further examination would you make, and what signs would you expect in the event of the probability you contemplate being converted into a certainty? 3. A sempstress complained of increasing difficulty in seeing to work: on examination, there were found (1) injection of palpebral conjunctiva, with heat and watering of the eyes; (2) inability to read for more than a minute or two at a time, though the type appeared quite distinct at first, and distant objects were always seen clearly and distinctly; (3) vision as of motes and twisted strings, these objects appearing to fall down across the field of view when the eyes were suddenly raised to the window; (4) the appearance of sparks and flashes of light before the eyes after much use of them. Explain the pathology of these four sets of symptoms, and the treatment proper to cure or alleviate the morbid states which caused them.

Assumption of Medical Titles. The following resolutions were agreed to at a meeting of the Salopian Medico-Ethical Society, on Tuesday, May 10th. The blanks denote certain individuals, whose names appear in the resolutions as passed.

"That the solicitor to the Society be instructed to write a cautionary letter to Messrs. ——, ——, and ——, of Shrewsbury, and request that they will cease to style themselves surgeon-dentists—a title to which they have no legal claim whatever; and, in the event of their refusal, that the solicitor be authorised to take legal proceedings against them, under the fortieth clause of the Medical Act.

"That the Honorary Secretary be requested to write to Mr. ——, of Cardington, and apprise him of the Society's determination to prosecute for illegal practice, unless he immediately desists from practising the profession of medicine and surgery.

"That the solicitor (provided the evidence is, in his opinion, sufficiently conclusive to ensure conviction) be, and is hereby, fully authorised to institute, on behalf of the Society, legal proceedings against —— and ——, for an illegal assumption of titles; and also against ——, of this town, for illegal practice; and to sue in each case for the full penalty attached to illegal practice."

St. Bartholomew's Hospital. Mr. Paget has resigned the lectureship on physiology at St. Bartholomew's Hospital, and, it is stated, will be succeeded by Mr. Savory; while the lectureship on anatomy, it is expected, will be divided between Mr. Skey and Mr. Luther Holden.

Epidemiological Society. On Monday, June 6th, a paper will be read entitled "Practical Remarks on Cholera Morbus"; by H. Cameron, Esq., Indian Artillery.

TO CORRESPONDENTS.

Anonymous Correspondents should always enclose their names to the Editor; not for publication, but in token of good faith. No attention can be paid to communications not thus authenticated.

Members should remember that corrections for the current week's Journal should not arrive later than Wednesday.

NOTICE.—Dr. Wynter will feel obliged if the Associates will address all Post Office Orders in payment of Subscriptions, to the Publisher, Mr. Thomas John Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, London, W.C., "Bloomsbury Branch"; and he would also feel obliged by their sending all communications respecting the non-receipt of the Journal, to the same address; as both these matters are out of the province of the Editor.

POSTAGE OF MANUSCRIPT AND PRINTED MATTER.

Any amount of manuscript or printed matter, singly or together, provided it contains nothing in the form of a written letter, is transmitted through the post, in packets *open at the ends*, at the following rates: not exceeding 4 ounces, one penny; above 4 and not exceeding 8 ounces, twopence; above 8 ounces and not exceeding 1 pound, fourpence; for every additional half-pound or under, twopence.

Communications have been received from:—Mr. I. B. Brown; Mr. George Norman; Mr. T. Holmes; Argus; Mr. Henry Goode; Dr. Greenhill; Dr. R. U. West; Dr. S. M. Bemiss; Quercus; Mr. L. Parker; Mr. T. M. Stone; Devonshire; Mr. Nunn; Mr. J. K. Spender; Dr. J. E. Crook; Dr. Styrap; Mr. W. F. Cleveland; Dr. McWilliam; Dr. Jas. Russell; Dr. W. Addison; Dr. P. H. Williams; Dr. T. H. Flemming; Mr. Pound; Mr. Logsden; and Mr. William Davies.

BOOKS RECEIVED.

[* *An Asterisk is prefixed to the names of Members of the Association.*]

1. On Dislocations and Fractures. By Joseph Maclise. Fasciculus IX; completing the work. London: John Churchill. 1859.
2. Hastings and St. Leonards-on-Sea; their Meteorology and Climate. By J. C. Savery, Esq. London: Churchill. 1859.
3. Prostitution considered in Relation to its Cause and Cure. By *James Miller, F.R.S.E. Edinburgh: 1859.
4. An Essay on the History, Pathology, and Treatment of Diphtheria. By *E. Copeman, M.D. Norwich: H. Stacy. London: Churchill. 1859.

ADVERTISEMENTS.

Just published, Fifth Edition, price 1s. 6d., or by post, 1s. 8d.

Lateral Curvature of the Spine, with a New and Successful Method of Treatment for Securing its Removal, without Confinement. By CHARLES VERRAL, Surgeon to the Spinal Hospital, Portland Road, London, Author of "The Spine, its Curvatures and other Diseases", etc. etc.

London: John Churchill, New Burlington Street, and all Booksellers.

Just published, price Eightpence; to be had by forwarding eight postage stamps to Messrs. Gray & Warren, High Street, Croydon.

The History of Sanitary Progress in CROYDON: a LECTURE delivered at the Literary and Scientific Institution, on Wednesday, April 6, 1859, by ALFRED CARPENTER, M.B. Published by desire.

Printed and Sold by Gray & Warren, High Street, Croydon.

Nearly ready, price 3s. 6d.

Archives of Medicine, No. IV, which will complete Vol. I. Subscribers are requested to send their remittance to Mr. John Jones, 10, Grange Court, Carey Street, W. C.

Annual Subscription, 7s.

London: John Churchill.

TO ADVERTISERS.

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